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ABSTRACT

Prepared in support of the Early Childhood Longitudinal Study (ECLS), which will examine children's early school experiences beginning with kindergarten, this working paper focuses on research regarding the measurement of young children's social competence, adaptive behavior, and approaches to learning. The paper reviews the key variables and assessment instruments available for studying these areas. Part 1 of the paper examines social competence, including definitions used in its study, research describing the importance of social competence, and descriptions of direct measures (observations, hypothetical problem sets, self-ratings, and sociometric techniques) and indirect measures of psychopathology and problem behaviors. The section on indirect measures includes measures that assess both positive and negative behaviors. Part 2 of the paper deals with adaptive behavior, providing definitions and evaluating several assessments. Part 3 concerns young children's learning styles and approaches to learning, addresses how elusive uniform definition is in this area, and concludes that none of the currently available learning style instruments meets the needs of the ECLS. Part 4 of the paper concludes that the Social Skills Rating System corresponds most closely to the needs of the ECLS and recommends that in the pilot study, the ECLS could administer the Feelings about School instrument and hypothetical problem sets to determine if they provide sufficient additional information to warrant their inclusion in the battery of instruments. The paper's four appendices provide descriptions and analyses of direct measures, behavior problem measures, social-emotional measures, and adaptive behavior measures. Contains 271 references. (KB)

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Assessment of Social Competence, Adaptive Behaviors, and Approaches to Learning with Young Children

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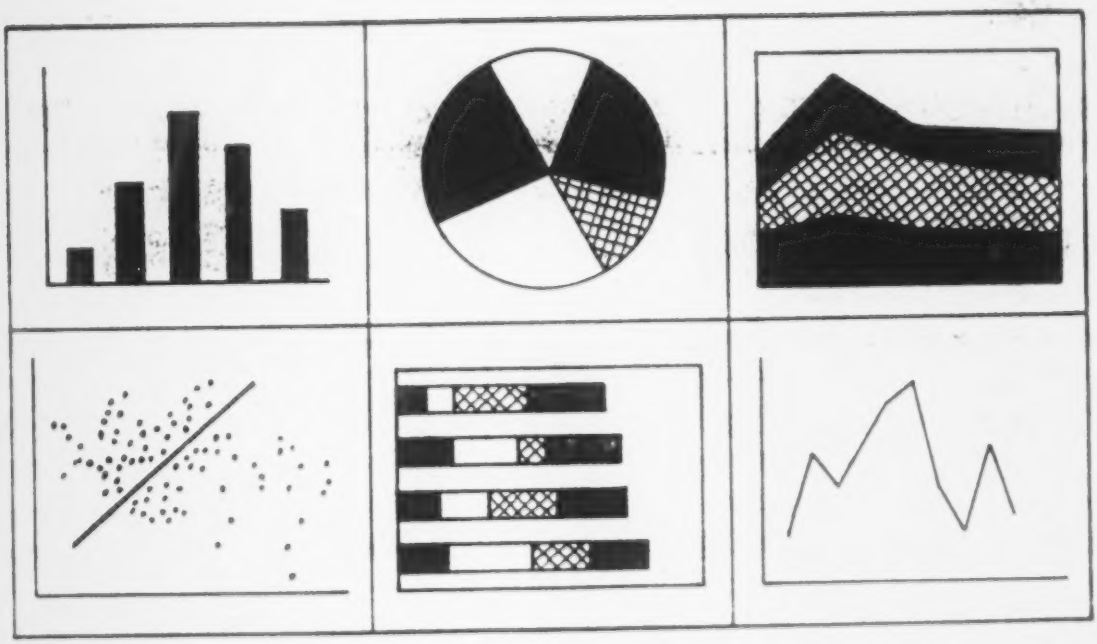

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Assessment of Social Competence, Adaptive Behaviors, and Approaches to Learning with Young Children

Working Paper No. 96-18 August 1996

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August 1996

Foreword

Each year a large number of written documents are generated by NCES staff and individuals commissioned by NCES which provide preliminary analyses of survey results and address technical, methodological, and evaluation issues. Even though they are not formally published, these documents reflect a tremendous amount of unique expertise, knowledge, and experience.

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Assessment of Social Competence, Adaptive Behaviors, and Approaches to Learning with Young Children

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August 1996

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Preface

The **Early Childhood Longitudinal Study (ECLS)** is a study that will focus on children's early school experiences beginning with kindergarten. The ECLS is being developed under the sponsorship of the U.S. Department of Education, National Center for Education Statistics (NCES), with additional financial and technical support provided by the Administration of Children, Youth and Families, U.S. Department of Education's Office of Special Education Programs and Office of Indian Education, and the U.S. Department of Agriculture's Food and Consumer Service. Approximately 23,000 children throughout the country will be selected to participate as they enter kindergarten and will be followed as they move from kindergarten through 5th grade. Base-year data will be collected in the fall of 1998, with additional spring follow-up data collections scheduled for 1999 through 2004. Information about children's neighborhoods, families, schools, and classrooms will be collected from parents, teachers, and school administrators.

Because of the magnitude and complexity of the ECLS, NCES has set aside an extended period of time for planning, designing, and testing the instruments and procedures that will be used in the main study. NCES and its contractor, the National Opinion Research Center, are using this time to examine a variety of issues pertaining to the sampling and assessment of young children and their environments. The design phase of the study will culminate in a large-scale field test during the 1996-97 school year.

NCES has sought the participation and input of many individuals and organizations throughout the design phase of the ECLS. The participation of these individuals and organizations has resulted in a set of design papers that identify policy and research questions in early education, map the content of the ECLS study instruments to these questions, explore and evaluate different methods for assessing the development of children and for capturing data about their homes, schools, and classrooms.

This paper is one of several that were prepared in support of ECLS design efforts. While the information and recommendations found in this paper have contributed to the design of the ECLS, specific methods and procedures may or may not actually be incorporated into the final ECLS design. It is our hope that the information found in this paper not only will provide background for the development of the ECLS, but will be useful to researchers developing studies of young children and their education experiences.

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Assessment of Social Competence, Adaptive Behaviors, and Approaches to Learning with Young Children

This paper focuses on research regarding the measurement of social competence, adaptive behaviors, and approaches to learning. Reviewed are the key variables and assessment instruments available for studying these three areas. The appendixes contain extensive lists and analyses of assessment instruments devised to study non-cognitive functioning in children. These lists extend well beyond the mandate to review the three areas noted above but give a good indication of the range of topics and variety of methods developed to better understand the social, affective, and intrapsychic functioning of young children. In this report, we will describe the results of our review of research regarding social competence, adaptive behaviors, and approaches to learning with special attention devoted to potential measures available for use by the Early Childhood Longitudinal Study (ECLS).

I. Social Competence

Definitions.

According to Rubin and Rose-Krasnor (1992), definitions of social competence are as plentiful as researchers examining this aspect of personal and social development. In a classic paper on social competency, Anderson and Messick (1976) reported the results of an expert panel that was convened to define the construct. The following 29 competency statements encompassing all areas of development were recommended by the panel:

1. Differentiated self-concept and consolidation of identity
2. Concept of self as an initiating and controlling agent
3. Habits of personal maintenance and care
4. Realistic appraisal of self, accompanied by feelings of personal worth
5. Differentiation of feelings and appreciation of their manifestations and implications
6. Sensitivity and understanding in social relationships
7. Positive and affectionate personal relationships
8. Role perception and appreciation

9. Appropriate regulation of antisocial behavior
10. Morality and prosocial tendencies
11. Curiosity and exploratory behavior
12. Control of attention
13. Perceptual skills
14. Fine motor dexterity
15. Gross motor skills
16. Perceptual-motor skills
17. Language skills
18. Categorizing skills
19. Memory skills
20. Critical thinking skills
21. Creative thinking skills
22. Problem-solving skills
23. Flexibility in the application of information-processing strategies
24. Quantitative and relational concepts, understandings, and skills
25. General knowledge
26. Competence motivation
27. Facility in the use of resources for learning and problem solving
28. Some positive attitudes toward learning and school experiences
29. Enjoyment of humor, play, and fantasy

This list is so wide-ranging that it tends to lose its value by virtue of its comprehensiveness. In fact, most definitions of social competence are considerably more circumscribed. Typically, these definitions incorporate social skills, attainment of social goals, maintenance of interpersonal relationships, and ability to make appropriate social judgments and act accordingly (also known as social problem solving). For example, Siperstein (1992) refers to social competence as the "marriage of social knowledge and social action" (p. iv). Schaefer and Edgerton (1983) propose a conceptual model of academic competence, social adjustment, and psychosocial development that integrates social and emotional behavior, motivation, approaches to learning, and cognition. Reschly and Gresham (1981) suggest that social competence is comprised of both adaptive behavior (independent functioning skills, physical development, academic competencies, and language development) and social skills (interpersonal behaviors, self-related behaviors, and task-related behaviors). Social competence has also been examined in relation to outcomes (success in social roles), and to behavioral traits that are thought to be predictive of positive social behavior (Greenspan & Granfield, 1992).

In considering the issue of assessing social competencies, Chandler and Chapman (1991) question whether one should consider competencies as "private" and "intrapsychic" or as residing somewhere in the space between individuals, tasks, and contexts. Social competence, by its very nature, involves other individuals. Assessment of social competence must take into account the judgments of significant individuals in the child's social milieu. This is commonly referred to as social validity (Gresham, 1983a; 1986). The most significant individuals in a child's life are peers, parents, and teachers, and many assessments of social competency include information from one or more of these sources.

We define social competency as those skills and behaviors of a child that lead to positive social outcomes with the individuals residing in a given setting and that avoid socially unacceptable responses. Following Strayhorn and Strain (1986), we suggest three "broad-band competencies" as paramount for achieving social competence:

1. Kindness, cooperation, and appropriate compliance (rather than hostile and defiant behavior)
2. Appropriate extroversion, i.e., interest expressed in people and things, and active socialization rather than interactions that are withdrawn and timid
3. Pragmatic language abilities, i.e. such social aspects of communication as interpreting nonverbal cues, understanding and using humor, initiating and responding appropriately to overtures, and referential communication

Assessment of social competence requires that attention be devoted to such intraindividual attributes as those listed above, as well as to contextual factors that support or influence individual competences. It is essential to focus not only on the child's actions and behaviors, but also on his/her interactions with others and the judgments of those in the child's setting who are familiar with the child and the norms of the situation.

Research Describing the Importance Of Social Competence

Extensive research has taken place concerning the importance of social competence and the skills that contribute to that competence. Social skills distinguish between students in kindergarten through third grade whom teachers rate globally as high or low on adjustment (McConnell, Strain, Kerr, Stagg, Lenker, & Lambert, 1984). They are significant predictors of academic achievement, kindergarten through sixth grade (Clark, Gresham, & Elliot, 1985; Reschly, Gresham, Graham-Clay, 1984; Swartz & Walker, 1984). One study of fifth graders, using the adolescent revision of the Walker-McConnell Scale of Social Competence and School Adjustment, found teacher ratings of social skills to be the best predictor of future academic achievement, school adjustment, and delinquency in the next three year period (Walker, Stieber, & Eisert, 1991).

Skills that are positively correlated with popular sociometric ratings are considered important for social competence. Among these are the ability to initiate and respond to social overtures, use peers as resources, and display appropriate affection, friendliness, sociability, leadership capabilities, moderately high self-esteem, intellectual ability, academic performance, and success experiences (Guralnick, 1986; Hartup, 1983). Overall, cooperation, communication, social participation, and validating/supporting others are identified as important predictors of peer acceptance (Oden & Asher, 1977; Coie, Dodge, & Kupersmidt, 1990).

In contrast, deficient social skills and behavior problems, particularly aggressive behaviors, correlate with children who are socially unpopular (Frentz, Gresham, & Elliot, 1991; Gottman, Gonso, & Rasmussen, 1975; LaGreca & Santogrossi, 1980; Oden & Asher, 1977). Specific social behaviors that are negatively related to peer acceptance include:

- devious, aversive reactions (Hartup, 1983; Roff, Sells, & Golden, 1972),
- depressed mood (Asher, 1990; Boivin, Poulin, & Vitaro, 1994),

- withdrawal (Boivin, Poulin, & Vitaro, 1994; Rubin, LeMare, & Lollis, 1990), and
- aggression and disruptedness (Boivin, Poulin, & Vitaro, 1994; Dodge, 1980; Dodge & Frame, 1982; Asher, 1990; Coie & Koeppl, 1990; Coie, Dodge, & Kupersmidt, 1990; Volling et al., 1993).

Although aggression is highly associated with peer rejection, it is also found with very popular children, but is then offset by the presence of socially competent behaviors (Volling et al., 1993). In combination with decreased prosocial and cooperative behaviors, aggression is predictive of peer rejection (Dodge, 1983; Parkhurst & Asher, 1992; Volling et al., 1993). Rejected children, whether aggressive or withdrawn, differ from nonrejected peers in terms of their inability to meet peer expectations of prosocial behaviors, teacher expectations of classroom behaviors, and the frequency of reactive aggression.

Lack of social skills correlates with several negative outcomes, including:

- increased school drop-out rates (Ullman, 1957),
- adolescent and adult mental health problems (Cowen et al., 1973; Kupersmidt, Coie, & Dodge, 1990; Rubin & Ross, 1988),
- juvenile delinquency (Hartup, 1983; Roff, Sells, & Golden, 1972; Kupersmidt, Coie, & Dodge, 1990), and
- dishonorable discharge from military service (Roff, Sells, & Golden, 1972).

Several studies demonstrate that conduct problems persist over time into adulthood (Strayhorn & Strain, 1986). Apathy/withdrawal scores in preschool predict scores in the fourth grade (r = .28) (Kohn, 1977). Moreover, in a four year longitudinal study attention problems and social rejection in kindergarten predicted later learning disabilities (Vaughn, 1993), whereas teacher ratings of problem behaviors in the second grade predicted negative outcomes in the fifth grade (Hymel, Rubin, Rowden, & LeMare,

1990). If labeled negatively by peers, negative interactions on the part of peers are more likely, and peers tend to overlook the positive behaviors of that child (Dodge, 1980; Hymel, Wagner, & Butler, 1990).

Some correlates of peer acceptance/rejection are not directly related to behavior. These include:

- birth order [youngest are more popular](Roff et al., 1972)
- health [poor health associated with rejection] (Roff et al., 1972)
- familiarity [positive relationship with acceptance] (Guralnick, 1986; Hartup, 1983; Howes, 1988; Ladd, Price, & Hart, 1990)
- handicapping conditions [negative relationship with acceptance] (Hartup, 1983)

It is advisable to obtain information about some of these areas in considering whether the social skills demonstrated by a child will be adequate for a judgment of positive social competence by peers. For example, birth order may be significant in the acquisition of social skills and achievement because of the socializing influence of parents and siblings. Similarly, children exhibit more advanced social skills with peers who are familiar (Guralnick, 1986; Howes, 1988), and sustained contact with peers provides an important context for the development of peer interaction skills (Howes, 1988, Ladd, Price, & Hart, 1990).

Several studies of social competence among children with disabilities have also been completed. Swanson and Malone (1992) conducted a meta-analysis of 39 studies that dealt with social skills and learning disabilities. They concluded that learning disabled children clearly have "lower social acceptance than their peers without handicaps" (p. 440). High effect sizes were found for personality problems, immaturity/inadequacy, and task-related behaviors. Poor pragmatic language skills were identified as another possible factor, but only three studies examined this area. Problems in motor coordination and physical activity were also found to correlate with peer ratings and loneliness. These

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studies defined peer ratings in terms of quality as well as quantity of social relationships (Doan & Scherman, 1987; Hartup ,1983; Hops & Finch, 1985; Page, Frey, Talbert, & Falk, 1992).

Measuring Social Competence

Depending upon the conceptualization of social competence, assessment has been undertaken in various ways. As in so many other areas of inquiry, how the behavior is defined determines how the construct is measured (Dodge et al., 1986; Gresham & Reschly, 1987). The various methods designed to assess social competence can be organized into two categories—direct and indirect measures.

Direct Measures

Direct measures of social competence include instruments used to collect information through observations or interviews with children. The four main types of direct measures used to evaluate children's social competence include: naturalistic and experimental observations, hypothetical problem sets, self-rating scales, and sociometric techniques.

Observations

Some observational measures are conducted in a natural context while others are conducted within experimental situations (e.g., Stipek, Feiler, Daniels, & Milburn, 1995; Turnure & Zigler, 1964). Naturalistic observations of children's social behaviors have been used to develop an understanding of children's peer relationships, determine appropriate goals for improving social behavior, and assess the outcome of social skills interventions (Honig & McCarron, 1988; LaGreca & Stark, 1986; Strassberg et al., 1994). Many researchers utilize naturalistic observational measurements during free play times, particularly when examining prosocial behaviors (e.g., sharing, helping, and cooperation). Aggressive behaviors and levels of play are also frequently used as observational categories. Some examples of the use of structured naturalistic observations with young children are the Bronson Social and Task Skills Profile (Bronson, 1985), Howes peer play

scale for children 1-5 years (Howes & Matheson, 1992), and Howes adult scale for children less than 5 years old (Howes & Stewart, 1987).

The Bronson Social and Task Skills Profile (Bronson, 1985) is based on an information processing model that emphasizes the importance of goal orientation and organizational skills. The observation categories record a "child's use of effective strategies for choosing and reaching goals in three areas: use of time in the classroom setting, mastery task activities, and social activities with peers" (Hauser-Cram, Bronson, & Upshur, 1993, p. 485). It has been used with children who are developmentally disabled as well as those who are typically developing. Six 10-minute observations per child are completed by a trained observer. Frequency and duration of both social and mastery variables are recorded during each observation (Hauser-Cram, Bronson, & Upshur, 1993, Bronson, 1994).

Various experimental tasks have been used in observational studies including behavioral role plays and simulations, mother-child problem-solving situations, and art, puzzle and block building tasks. Behavioral role plays and simulations entail creating situations where children are asked to act out or respond to particular parameters with the investigator observing. However, Gresham (1986) cites seven simulation studies, that do not demonstrate validity. The behaviors observed in these simulations do not predict sociometric status nor do they correlate with naturalistic observations of the same behaviors.

In other experimental observations, researchers observe social interaction and emotion regulation during problem-solving tasks. For example, Pianta and his colleagues observed problem-solving situations between mothers and children where the dyads work together to complete a fine motor and a verbal task (e.g., block building, naming objects in a category) during a fifteen minute period (Lothman, Pianta, & Clarson, 1990; Pianta, & Caldwell , 1990; Pianta, Erickson, Wagner, & Kreutzer, 1990; Pianta, Smith, & Reeve, 1991; Pianta & Lothman, 1994). Prior to beginning the tasks, the mother is instructed

(when the child is not present) to teach the tasks to the child and help the child to perform them correctly. Immediately after the interaction, the researcher completes 5-point global ratings on the mother's supportive presence and quality of instruction, the child's reliance on the adult for help, and the child's negativity/anger, and affection.

Stipek and colleagues (1995) conducted observations of an experimental situation where individual children were involved in art, puzzle, and block building tasks. Observers rated each child's level of dependency, preference for challenge, anxiety, and pride in accomplishment. To measure dependency, observers recorded the similarity of the child's art construction to that created by the adult, the child's requests for assistance or for the examiner's opinion or approval, the number of times the child looked at the adult's art work or puzzle, and whether the child waited for the adult to begin before starting the puzzle task. Preference for challenge was measured by showing children cards with increasing numbers of objects to be counted or added, and by allowing children a choice of completing a puzzle that they had previously been unable to complete (under a timed condition) or one that they had completed. A child's challenge was determined by whether s/he selected a card with a higher number of items to count or a puzzle that s/he had previously been unable to complete. Anxiety ratings were completed as each child engaged in the various tasks. Ratings for pride in accomplishment were based on whether the child smiled upon completing the puzzle or verbally drew the examiner's attention to his/her completed puzzle. However, cultural differences in displays of emotion may make this rating category somewhat problematic, particularly among children for whom it may be inappropriate to draw attention to personal accomplishments.

Strengths. Naturalistic observations can be repeated frequently, and when observations are performed by someone outside the social milieu, subjective bias is minimized. Observations of experimental tasks are less costly than naturalistic

observations and may be completed in a single time period. They are also useful for observing behaviors that may occur with low frequency in natural settings.

Concerns. Two concerns that face observational studies are cost and interrater reliability. Even when adequate interrater reliability has been achieved at the outset, there is potential for observer drift (i.e., differences in how raters interpret behaviors over time). Training observers, completing multiple observations, and arranging the time for coding the data contribute to the high cost of this type of measure. In an experimental setting, validity is affected by the unfamiliar adult and unfamiliar situations. In addition, cultural differences among children render some measures inappropriate for certain populations.

In order to obtain valid assessments of behavior, multiple observations in multiple settings may be necessary. For example, Gibb and Jacobson (1988, cited in Foster et al., 1993) found that unpopular boys utilized different entry strategies for cooperative and competitive tasks and needed to be observed on different occasions. Extended time for observations is also necessary. When examining family interaction, Patterson (1982, cited in Foster et al., 1993) found that 60-100 minutes collected over three to five sessions was the absolute minimum needed to evaluate performance.

Observers generally code the frequency of behaviors when using these measures. However, it may be the quality of the behavior (e.g., the type of eye contact) rather than the frequency that is important for social competence. In addition, the presence of an observer (or video equipment) may alter the child's responses. Finally, some behaviors that influence peer relationships may only occur away from adult surveillance (Foster et al., 1993).

Hypothetical Problem Sets

Social problem solving or hypothetical problem sets have been used in studies of social cognition. The child is presented with hypothetical dilemmas and asked to interpret a peer's intentions (attribution measures) or to generate and evaluate solutions to social

problems. These measures answer the question, "does the child know what skill should be used and can the child make social judgments?" Social problem solving sets do not tell how often (or whether) the child actually uses these skills. Among children with poor social ratings, Bandura (1977) makes the distinction between skill deficits, performance deficits, self-control skill deficits, and self-control performance deficits. Social problem solving sets assess only skill deficits. Presentation of the hypothetical dilemmas may be verbal, videotaped, or use enactments (e.g., with puppets).

Mize and colleagues used hypothetical problem sets in studies with preschoolers. With low SES preschoolers, the friendliness of the children's initial responses during enactments with puppets were more predictive of their peer group acceptance and teachers' ratings of social competence than the children's verbal scores on the Preschool Interpersonal Problem-Solving Test (PIPS, Mize & Ladd, 1988). For the middle income preschoolers, the friendliness of their initial verbal responses with the puppets and the number of responses given during the enactment situation were the strongest predictors of their observed behavior and teacher ratings of their aggression and friendliness (Mize & Cox, 1990).

In another study, Hubbard and Cillessen (1993) asked boys aged 5-7 years ($\underline{n}$ = 220) to generate responses to hypothetical situations presented in a story format. The problems included group entry, object loss or damage, object conflict, and activity conflict. Results were coded according to use of social strategies (25 codes) and compared with sociometric classifications. Popular boys generated more strategies in the compromise/negotiate and wait/hover categories and had fewer aggressive responses than average boys. Rejected boys could also be differentiated from average boys according to their strategy use.

Dodge and his colleagues have published a large body of work using hypothetical measures in examining his social-information processing model. Dodge's model outlines five steps involved in social problem-solving: encoding social cues; interpreting the

cues; generating potential responses; deciding on the response and evaluating consequences; and enacting the chosen response. Variation in these processing steps shows predictable variation in behavior (and peer status) across several studies (Crick & Dodge, 1994; Dodge, 1993; Dodge & Crick, 1990; Dodge & Feldman, 1990; Lochman & Dodge, 1994).

Dodge (personal communication, 1995) recommends three important areas to investigate in hypothetical problem sets with young children: attribution issues, responses to interpersonal dilemmas, and evaluations of the effectiveness of proposed solutions to interpersonal problems. When selecting which type of hypothetical dilemmas to use, it is important to consider the different types of information each focus area provides:

- Attribution issues concern the child's understanding of social cues and whether the child makes hostile or benign attributions in ambiguous situations. Dodge and his colleagues have found no developmental trends in this area.
- Responses generated to interpersonal dilemmas are examined for the appropriateness of the responses generated (coded as aggressive, non-aggressive/inept, or competent) and the number of solutions a child is able to generate (up to ten). Children's competence in this area increases with age.
- Evaluation of effectiveness of solutions to interpersonal problems is investigated by presenting different solutions to children and having them tell the examiner whether they believe these are good or poor solutions to the problems and the reasons why. Dodge has found some developmental trends in this area, but they are unreliable until the third grade or later.

In measuring these three areas, Dodge and colleagues used a combination of videotaped scenarios and hypothetical stories. The videotaped vignettes ($n = 24$) were used to assess children's ability to attend to and encode social cues, generate a single response to hypothetical problems, and evaluate the effectiveness of the responses

proposed by the administrator. The hypothetical stories (n = 8) were used to assess hostile/benign attribution and solution generation. Children were asked why a certain situation occurred and then asked to generate as many behavioral solutions as possible (up to 10). The mean number of solutions per problem was computed.

Dodge and associates (Dodge, Pettit, & Bates, 1994; Weiss, Dodge, Bates, & Pettit, 1992) administered these social cognitive measures to young children from a variety of ethnic groups and from homes with a wide range in SES (Hollingshead four factor index ranged from 14-66 out of possible range of 8-66). In the first two cohorts (n = 309 and n = 275), children who showed "less attention to relevant cues, greater hostile attributional biases, a tendency to generate aggressive responses to hypothetical problems, and positive evaluations of the likely outcomes of aggressing" received one or more ratings of aggression six months later (as measured by peer and teacher reports) (Weiss et al., 1992).

Strengths. Some hypothetical problem sets have shown sensitivity to children's development in their problem solving abilities over time. Children's responses to hypothetical dilemmas may also provide helpful information for researchers interested in interpreting children's scores on more global behavior rating measures. Dodge's hypothetical measures show a significant ability to discriminate children with aggressive problem behaviors.

Concerns. The time needed for administration and scoring of children's responses to the hypothetical problem sets is not described within the various studies using these measures. While great attention was paid to balancing gender and ethnicity in Dodge's videotaped segments, little attention was paid to either of these issues in the illustrations used to accompany the hypothetical stories. Because each child is asked to "imagine this is you," in the various hypothetical stories, it is important that all children can identify with the illustrations presented. Using multiple sets of illustrations is one way to address this concern.

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Finally, receptive language abilities may confound the results of social cognitive measures. Reliance on verbal hypothetical situations may reduce the applicability of these procedures to some populations, for example, preschool children, individuals with poor listening comprehension or limited cognitive and language ability.

Self-rating scales

Self-rating scales enable children to respond to varied stimuli (typically paper and pencil questionnaires) with judgments concerning specific aspects of their development. The topics addressed within self-rating scales often focus on children's perceptions of self-concept, problems in school, sense of well-being, or school achievement. Three commonly used self-rating scales are reviewed below.

The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) is a self-rating scale that taps children's perception of their cognitive competence, physical competence, peer acceptance, and maternal acceptance. Children respond by first pointing to pictures that they believe are most like them and then indicate degree of similarity. A teacher rating scale is available that parallels the child instrument by documenting the teacher's perception of the child in the same areas.

This instrument has been used in several studies (e.g., Howes & Matheson, 1992) and allows for comparison with other samples. It fills a gap in the assessment realm by rating children's judgments about themselves in specified domains. Harter (1990) reports that for children younger than age eight, cognitive and physical competence combine into one factor, and social acceptance and conduct items combine into a second factor. Young children have difficulty differentiating discrete areas of self-concept because of their limited understanding of specific concepts such as self-worth (Harter, 1990). Although this measure reports on children's judgments about self, it does not give a clear picture of how these areas may differentially influence children's self-esteem. In addition, some difficulty is reported with primary age children's understanding of the task when this

instrument is used with children who have learning problems (Forman, E. , personal communication).

The Loneliness and Social Dissatisfaction Questionnaire (LSDQ; Asher, et al., 1984; Asher & Wheeler, 1985; Cassidy & Asher, 1992) is a self-rating scale consisting of sixteen questions related to children's feelings of social adequacy (e.g., "Is it easy for you to make new friends at school?"), loneliness (e.g., "Do you feel alone at school?"), and subjective estimations of peer status (e.g., "Do the kids at school like you?"). In addition, there are eight "filler" items focusing on children's hobbies and preferred activities (e.g., "Do you like playing card games?"). Early versions of this instrument required children to respond to a five point Likert scale. The current adaptation asks children to respond to each question with a "yes," "no," or "sometimes." Factor analysis reveals that the items load on a single factor with low to moderate correlations (.25 to .58).

The LSDQ has been used in conjunction with peer sociometrics with elementary age children (kindergarten - sixth grade). The self-report of loneliness discriminated the children with low peer acceptance (i.e., those who were rejected by their peers). A subscale of three items from this instrument ("Do you feel left out of things at school?", "Do you feel alone at school?", and "Are you lonely at school?") obtained the same relationship with sociometric status as the full scale. Therefore, these questions might be useful in combination with other measures in the ECLS. The LSDQ has only been used with small samples and test-retest reliability has not been demonstrated. In comparison to other measures of social competence, it examines a rather narrow construct.

The Young Children's Feelings About School measure (FAS; Stipek, Feiler, Daniels, & Milburn, 1995) is a 16-item self-report questionnaire designed to measure the effects of different instructional approaches on children's socio-motivational development. This measure is intended to provide information from the child's perspective of his/her enjoyment of and anxiety about school. Children's affect regarding school, particularly anxiety about school, has been associated with attention to task (Stipek & Mason, 1987),

intrinsic motivation (Gottfried, 1990), resilience (Werner, 1990), and achievement (Short, 1992). In addition, students' emotional response to school appears to affect teacher reactions and support of the student (Skinner & Belmont, 1993). Studies using the FAS suggests it is sensitive to differences in observational measures of the quality of child care and the nature of instruction (i.e., didactic, skills-based approaches vs. child centered methods) (Stipek et al., 1995; Howes, 1995).

Children are asked to respond by pointing to one of five schematic drawings. The drawings include faces ranging from an extreme frown to an extreme smile, or five circles of increasing size. The average time for administration is ten minutes. One concern relates to the stimulus items which include a sketch of a teacher, who is female and the faces of children who all appear to be Caucasian. Although, Stipek and colleagues (1995) used the instrument with children of various ethnic groups reporting no difficulties, the lack of diversity represented in the faces on the instrument may be problematic. When asked to select the face that is most like them, young children should be able to identify easily with the pictures. In addition, the FAS is reported as sensitive to marked differences in teaching style (those classrooms that could not be clearly categorized as didactic/skills based or child-centered/constructivist were eliminated from the study), although there is no indication of its sensitivity to more subtle differences in instruction.

Strengths. Self-report measures provide an important perspective related to the assessment of a child's social competence, the child's own perception of his/her classroom context or his/her social skills. Understanding children's perceptions related to their social skills may provide useful information for individuals interested in interpreting children's scores on behavior report measures and/or designing intervention programs targeting children's social skills.

Concerns. Young children have difficulty understanding and differentiating some of the concepts measured by self-report instruments. Therefore, young children provide

ratings for global perceptions without making fine distinctions between concepts. In addition, children may project what they desire instead of reporting their actual perceptions.

Sociometric techniques

Sociometric techniques include peer nominations, peer ratings, peer rankings, and popularity ratings by teachers. These methods present "snapshots" of interactions. More information is necessary in order to obtain a functional assessment of behaviors. Peer nominations ask children to name a number of children (usually three) whom they like (positive nominations) and three whom they do not like (negative nominations). Parents and teachers often object to negative nominations because of concern about possible negative side effects, but research does not substantiate these fears. Children may also be asked to nominate peers with whom they would like to play (or take with them on a vacation, etc.) or who possess certain attributes or behaviors (e.g., "shares a lot", "is mean", "gets angry easily"). In peer rating scales, students are given a class roster and asked to rate from 1-5 how much they like each peer. With younger children, photographs are used, and they choose between a sad face, neutral face, and happy face for each classmate ("don't like", "kinda like", and "like a lot").

One peer nomination technique asks children to identify peers who fill a social role or exhibit a certain attribute. For example, a child might be asked to nominate three peers who could best be described as angry, shy, or helpful (Eisenberg et al., 1988; Volling et al., 1993). Some standardized measures using this format for peer evaluation include the Class Play (Bower, 1960), the revised Class Play (Masten, Morison, & Pelligrini, 1985), and the Pupil Evaluation Inventory (Pekarik, Prinz, Liebert, Weintraub, & Neale, 1976). In the Class Play procedure, children are asked to nominate peers who would best fill certain roles in a hypothetical play. Half the roles are negative, and half are positive. This approach is useful for assessing the behavioral characteristics of some children, but is not useful with children under the age of eight because of their undifferentiated social

perceptions. The Class Play procedure has been used most often with children who are 9-12 years old.

Young children may have difficulty differentiating social roles and skills of peers, basing their decisions on very visible negative behaviors, for example, aggression and frequent disruptions (Coie, Dodge, & Kupersmidt, 1990). Young children also give higher ratings to peers who do well in school. As children grow older, their social perceptions become more differentiated and they are more sensitive to interpersonal subtleties. For example, they develop increasing ability to determine peer norms, adjust to the viewpoints and communications of others, interpret interpersonal contexts, and flexibly adapt their behavior to the demands and feedback of a given situation (Bierman & Montminy, 1993).

When sociometric measures are used with young children, each child is first asked to name the photographs of all of his/her classmates in order to assure recognition. Researchers have used pictorial sociometric ratings and nominations with children as young as three years of age obtaining acceptable reliabilities on the children's ratings (Howes, 1988). Howes presented children with pictures of their classmates one at a time and asked the children to place them in one of three different size bowls (large, medium, or small) to indicate how much they wanted that child as a friend. Peer ratings were computed as the average score received by each child. Reliabilities for ratings ranged from .76 for three year olds to .84 for six year olds, increasing with age in a linear fashion. Reliabilities for nominations ranged from .54 for three year olds to .77 for six year olds. The high reliabilities in this study may have been due in part to the amount of time the children spent together each day and the stability of their peer groups. Each child had been with their peer group a minimum of 8 months (range = 8-60 months).

Vitaro and colleagues (Vitaro, Gagnon, & Tremblay, 1990; Vitaro, Tremblay, Gagnon, & Boivin, 1992; Vitaro, Tremblay, Gagnon, & Pelletier, 1994) used peer nomination and ratings in a group-administered situation with children as young as

kindergarten employing booklets with photographs of all of the children in the class. They reported "adequate temporal stability," for the children's ratings, however, actual reliabilities were not available. For peer nominations, children were asked to circle the pictures of the children nominated for each category. For the peer ratings, children were asked to place one of three stickers (happy, neutral, or sad face) beneath the photograph of every child in the class to indicate how much they liked each child. This measure had less predictive accuracy than teacher behavior ratings.

Fantuzzo and colleagues (Fantuzzo, Manz, & McDermott, 1994) administered the Social Skills Rating System Teacher Form (SSRS; Gresham and Elliot, 1990) and the Howes sociometric techniques (1987) to inner city Head Start and kindergarten children who had been in class together for six months. It took approximately ten minutes for each child to complete the peer ratings. Only a six percent overlap was detected between the two measures. This suggests that sociometric ratings may extend the information received on teacher reports of behavior and increase understanding of peer relationships.

Strengths. Sociometric nominations of children older than age eight have the strongest predictive validity of any of the methods available for assessing socio-emotional development. Cowen et al. (1973) found that, although teacher ratings of children were highly correlated with observed behaviors and problems in children, the sociometric nominations of third graders were more predictive of children who later experienced mental health problems. This suggests that sociometric nominations should be strongly considered for the ECLS beginning in third grade.

Sociometric ratings can be obtained reliably from children as young as three when the peer group has been together for at least eight months (Howes, 1987). It appears that sociometric techniques will provide information that supplements, rather than supplants, teacher and parent rating instruments. Peers have access to more diverse social behavior and situations than can be assessed by teachers and parents. Gresham and Stuart (1992) contend that "information provided by peers cannot be obtained from other sources and

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therefore represents unique and potentially valuable data regarding the child's social competence" (p.224). Peer ratings are the most time efficient and reliable method of obtaining this information.

Unlike nominations, peer ratings lack a significant effect for gender (Wasik et al., 1993). It appears that when children rate the entire class rather than the extremes (i.e., positive and negative nominations), gender is less of a factor in judgment.

When peer groups are less stable, assessment of friendship patterns by teachers may be more reliable. In Howes's study of preschoolers (1987), teacher and peer friendship nominations concurred for 78% of the possible friendship dyads; the majority of disagreements (87%) pertained to the reciprocity of the relationship (unilateral versus reciprocal friendships). Other researchers also report significant correlations between teacher and peer nominations. In addition to being more reliable, teacher nominations predict a greater proportion of the variance found in observations of interaction (Connolly & Doyle, 1981). This might argue for the addition of an item to the ECLS battery that asks teachers and parents to name the child's three best friends. This could provide an independent measure of the stability of the child's friendships.

Concerns. Peer ratings with children younger than second grade require the use of photographs of every child in the class. It may be difficult to obtain ratings on children who move to new schools and such movement greatly increases the number of children who need to be consulted. The requirement of having a photograph of every child in the class means that more than the 24,000 children in the ECLS sample would be involved. Since as few as eight students per class may participate in kindergarten, data would need to be collected—as would parental permissions—from a very large number of students. Mobility patterns will also decrease the amount of time some children spend with the same peer group, thus reducing the reliability of this measure for the ECLS.

Summary of Direct Measures

Among the available measures, the Feelings About School measure and Dodge's hypothetical/social cognitive measures seem the most promising. Although peer ratings offer an excellent measure of peer assessment of interpersonal skills, the logistic difficulties of collecting these data preclude our recommending this technique for use in the ECLS. The observational measures also do not seem to fit within the framework of the ECLS. They either require too much expertise from observers, and/or too much time for coding.

The Feelings About School measure has demonstrated adequate stability and provides a child's perspective on schooling and learning. It complements the information obtained from teachers about the child's approaches to learning. It can be adapted for group administration to students in first grade and beyond.

Examining a child's social cognition through hypothetical measures as part of the cognitive testing may help in discerning those children who lack impulse control from those who do not understand social situations or are unable to generate and evaluate solutions to problems. This is the only measure that has demonstrated developmental change. It should not be too time consuming to incorporate the vignettes in the ECLS assessment battery, and they would supplement the teacher and parent ratings of the child's behavior and pragmatic language skills. In kindergarten it would be most fruitful to follow Dodge's recommendation and assess the response generation stage using cartoon stimuli. This measure has been adapted for group administration in first grade and beyond

Indirect Measures

In addition to using direct measures and techniques, social competence can also be assessed using indirect methods. Indirect methods involve behavior ratings made by significant individuals in the child's life (e.g., teachers, parents, caregivers, peers). Ostensibly these ratings are based on ongoing interaction and observation of the child

over time. The discussion of indirect measures includes two main categories, instruments that focus mainly on psychopathology and problem behaviors, and instruments that include both positive and negative behaviors.

Measures of psychopathology and problem behaviors

Instruments measuring problem behaviors abound in the literature. Discussion here will be limited to two widely used instruments, the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983) and the Behavior Problem Inventory (BPI; Zill & Peterson, 1986). Additional problem behavior instruments are described in Appendix B.

The Child Behavior Checklist (CBCL), Teacher Report Form (TRF), and Youth Self-Report (YSR) (Achenbach & Edelbrock, 1988; Achenbach, 1991a; 1991b) are parallel rating scales for parents, teachers, and children over the age of eleven years. Raters record problems and competencies of children and report the degree to which stated behaviors are true for the child in the previous six months. The majority of the items (n = 118) address problem behaviors and are negatively worded, e.g., "cruel to animals", "overweight", "secretive, keeps things to self", "talks too much", "whining" (CBCL, Achenbach & Edelbrock, 1983). A short social competency component on the CBCL asks parents to relate the activities of the child (e.g., jobs, sports, hobbies, clubs), organizations in which the child participates, and the child's close friends, and to rate the child's school performance and his/her ability to get along with others. These well-designed instruments are very widely used in research. There is both a conceptual and empirical basis for the items. Norms are available by age and gender and the manuals present studies that demonstrate the reliability and validity of these instruments (Christenson, 1992).

The congruence of items across the three forms provides standardized descriptions of the child's behavior (as perceived by significant individuals in the child's life). Items included on the checklist show a significant relationship with referrals for behavioral and socioemotional problems. Information on the TRF indicates misclassification of

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approximately 28% of the sample with a balance of false negative and false positives. The TRF contains several items that allow for individualization.

Though well explained in the manual, the hand scoring can be tedious and take about 20 minutes to complete (computerized scoring is available). Because these instruments are heavily weighted toward psychopathology, they are appropriate for detecting children in need of referral, but they do not provide a comprehensive picture of a child's strengths.

The Behavior Problems Index (BPI; Zill & Peterson, 1986) contains 28 items representing six scales: headstrong, antisocial, anxious/depressed, hyperactive, dependent, and peer conflict. The items are designed to document the more common behavior problems exhibited by children aged 4 to 17. The BPI has been used in the National Longitudinal Survey of Youth (NLSY, more than 10,000 children) and the National Health Interview Survey of Child Health (NHIS-CH, $\underline{n}$ = 15,416) providing a large data base for comparison. It has been used with diverse populations and successfully discriminated between referred and nonreferred children (Zill, 1990, cited in Love, 1994). The BPI is used so widely that "it can now essentially be considered a benchmark for other measures" (Love, 1994, p. 20).

Strengths. Estimates of the prevalence of problem behaviors in children range from 10 to 25% (Love, 1994). Problem behaviors not only identify children at risk for future problems but also serve as indicators of the social support system since presence of problem behaviors correlates with the number of social risk factors (e.g., low maternal self-esteem, poverty, large family, unstable marriage). Problem behavior measures have high reliability, show strong concurrent validity (with observations and peer evaluations), and are predictive of future problems. They are relatively inexpensive to administer and their wide use in research allows for comparison with other samples.

Concerns. The problem behavior instruments primarily assess psychopathology and do not adequately measure skills related to a child's social competence or provide a balanced portrayal of the child. For example, many of the items on these instruments are

negatively worded—"can't get along with teachers" "feels worthless " (Behavior Problems Index). Since prosocial behaviors and positive social skills appear to have a mediating effect on the aggressive tendencies of children and their subsequent popularity (Dodge & Feldman, 1990; Ladd, Price, & Hart, 1990; Volling et al., 1993), it is important to assess social competence areas as well as the problem behaviors. Therefore, if problem behavior measures are used, additional instruments assessing children's competencies and skills should be used as well.

Measures that include both positive and negative behaviors

Of the rating instruments that are standardized on elementary age children, the Health Resources Inventory (HRI; Gesten, 1976) and the Social Skills Rating System (SSRS; Gresham & Elliot, 1990) are designed to assess the presence of social skills and competencies as well as problem behaviors. (Other instruments are available that focus on a single area of socio-emotional functioning, e.g. self-esteem).

The Health Resources Inventory was standardized on a small normative sample (n = 592) of children in grades one through three in Rochester, New York. Test-retest reliabilities after four to six weeks ranged from .72 (peer sociability) to .91 (rules). The HRI is a teacher rating scale that consists of 54 items rated on a 5-point scale. Factor analyses revealed five factors and a composite. The five factors are:

1) good student ("is good in reading", "is a self-starter", "does original work");
2) gutsy, adaptive assertiveness ("expresses ideas willingly", "is able to question rules that seem unfair or unclear to him");
3) rules ("is polite and courteous", "is well behaved in school");
4) peer sociability ("is affectionate toward others"," plays enthusiastically"); and
5) frustration tolerance ("copes well with failure", "accepts criticism well").

Due to limited psychometric information, restricted normative sample, and limited age applicability, the HRI was not explored further for the ECLS.

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The SSRS (Gresham & Elliot, 1990) measures positive social skills and prosocial behavior, as well as the prevalence of problem behaviors. It uses teacher, parent, and student (≥ grade 3) questionnaires and is available in a preschool version as well as a version for grades kindergarten through six. The latter version contains 57 items on the teacher form and 55 items on the parent form. The SSRS is designed to sample three domains: Social skills, Problem Behaviors, and Academic Competence. The SSRS is among the best developed scales for measuring children's social behavior. It was examined carefully and a description of the instrument and summary of its strengths and weaknesses follows. We will describe the SSRS and its technical characteristics, present relevant research, and suggest a number of changes that should be implemented if it is used in the ECLS battery.

Description. The SSRS (Gresham & Elliot, 1990) primarily samples the area of social competence, but it has some overlap with adaptive behavior scales, and with some modification, may function to assess some of what is meant by "dispositions toward learning." In its published form it consists of three forms: 1) for children in grade three or above, and 2) for the parents, and 3) teachers of children beginning in preschool. The SSRS is available in preschool, elementary, and secondary versions. The elementary teacher form contains 57 items, and the parent form has 55 items. The SSRS samples three domains: Social Skills, Problem Behaviors, and Academic Competence.

Within the domain of Social Skills, all three rating scales (i.e., teacher, parent, and student) measure common core behaviors from the subdomains of Cooperation, Assertion, and Self-Control. Five Subscales were developed to measure the subdomains. Forming the acronym CARES, the five subscales are:

- Cooperation (behaviors such as helping others, sharing materials, and complying with rules and directions),

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- Assertion (initiating behaviors, such as asking others for information, introducing oneself, and responding to the actions of others, such as peer pressure or insults),
- Responsibility (behaviors that demonstrate ability to communicate with adults and regard for property or work),
- Empathy (behaviors that show concern and respect for others' feelings and viewpoints), and
- Self-control (behaviors that emerge in conflict situations, such as responding appropriately to teasing, and in nonconflict situations that require taking turns and compromising).

The factor structure for these subdomains is very strong at the elementary level. The factors for the parent and teacher forms include items that are sensitive to the influences of that specific environment (i.e., home or school). There is no research regarding the individual subscale predictability for school-related outcomes other than social skills.

The Social Skills scale uses two types of ratings—frequency and importance. Only the frequency ratings are used to obtain raw scores for the scales and subscales. Importance is defined for teachers as importance of each behavior for classroom success and is used in devising interventions. The teacher form includes only the cooperation, assertion, and self control subscales. (The cooperation, assertion, and responsibility subscales appear on the parent form.) Examples of items from the teacher's scale include: "Controls temper in conflict situations with peers", "Responds appropriately to peer pressure", and "Initiates conversations with peers".

The subscales of the teacher and parent form are moderately correlated. On the teacher form, the cooperation subscale correlates with assertion (r = .46), and with self-control (r = .64). The assertion subscale correlates with self-control (r = .49). On the parent form, cooperation correlates with assertion (r = .33), responsibility (r = .41), and self-control (r = .50). Assertion correlates positively with responsibility (r = .51) and with

self-control (r = .38). Responsibility also correlates with self-control (r = .48). These correlations indicate that children who are competent typically exhibit skills across the subdomains.

The domain of Problem Behaviors contains three subdomains:

- Externalizing Problems (behaviors involving verbal or physical aggression toward others, poor control of temper, and arguing);
- Internalizing Problems (behaviors indicating anxiety, sadness, loneliness, and poor self-esteem; and
- Hyperactivity (behaviors involving excessive movement, fidgeting, and impulsive reactions).

All of the problem behavior subdomains are included on both the teacher and parent form. They are defined generally as problems that might interfere with social skills and are rated according to their perceived frequency. Examples include: "Fights with others", "Is easily distracted", "Gets angry easily", and "Acts sad or depressed". The hyperactivity subscale is highly correlated with externalizing behaviors (r = .70). Because of this overlap, the hyperactivity subdomain can probably be excluded in the ECLS.

The Academic Competence domain focuses on student academic functioning. These items are rated on a 5-point scale corresponding to percentage clusters (1 = lowest 10%, 5 = highest 10%). Included in this domain are items measuring reading and mathematics performance, motivation, parental support, and general cognitive functioning. Since the ECLS will be collecting information on school performance, this scale need not be administered.

Though the SSRS does not address specific areas of communication (e.g., referential communication), it does contain many items that call upon adequate pragmatic communication, e.g., on the teacher edition: "introduces himself", "compromises in conflict situation", "says nice things about himself or herself when appropriate", and "invites others to join in activities".

Cultural and ecological validity are important in examining the use of adaptive and social-emotional instruments (Anderson & Messick, 1976; Greenspan & Granfield, 1992; Gresham & Reschly, 1987; Swick & Hassell, 1988). Because of the differences among students and families in cultural mores, social competence instruments should ascertain the importance of a given behavior in that environment. The SSRS uses multiple raters who are familiar with the child's social context in order to assess the cultural and ecological validity of its items. Teachers and parents rate the importance of the item, as well as their perception of the frequency with which the child exhibits that behavior or trait. Parents are told that the questionnaire is designed "to measure how often your child exhibits certain social skills and how important those skills are to your child's development. Ratings of problem behaviors are also requested." Teachers are given similar instructions, being told that the questionnaire is designed to measure how often a student exhibits certain social skills and how important those skills are for success in their classroom. Because the importance of an item is assumed to be constant across all children in a classroom, teachers need only be asked to complete the importance rating once, which is helpful for the ECLS. The importance ratings are not used in computing the score on the SSRS, and they are independent of the frequency ratings. Correlations between these two measures are not reported. For the ECLS, importance ratings are necessary for understanding the congruence between home and classroom priorities.

Technical information. The SSRS has a relatively large, national standardization sample (n = 4,170 children), including ratings from 1,027 parents and 259 teachers. Children from both private and public schools were included in the sample. Based on the 1990 projections of the U. S. Bureau of the Census (1986), black children were overrepresented (sample = 20.1% vs. U.S. population = 15.7%), and children of Hispanic ethnicity were underrepresented (sample = 3.8% vs. U. S. population = 11.6%) in the elementary sample. Norms are available by gender and age, and for handicapped and nonhandicapped children. No differences were reported among ethnicities.

Internal consistency was high across all forms and levels. The median alpha was .90 for the Social Skills Scales, .84 for the Problem Behaviors Scale, and .95 for the Academic Competence Scale. Test-Retest correlations on the teacher form were reported as .85 for Social Skills, .84 for Problem Behaviors, and .93 for Academic Competence. Parent correlations were .87 for Social Skills and .65 for Problem Behaviors.

Three criterion-related studies of validity are reported. The first compares the Teacher form with the Social Behavior Assessment (SBA; Stephens, 1978), a comprehensive teacher rating scale of 136 social skill behaviors. Higher scores on the SBA indicate more problem behaviors. With a sample of only 79 elementary-aged students, correlations of the subscales were quite wide in range (e.g., from -.15 to -.73 for the Social Skills Subscales, from .01 to .57 for the Problem behaviors Subscales, and from -.37 to -.72 for the Academic Competence Scale). However, the total scale correlations were more consistent (.55 for problem behaviors, -.68 for social skills, and -.67 for academic competence). The second study focused on correlations between the SSRS Teacher form and the Child Behavior Checklist-Teacher Report Form (CBCL-TRF). Higher and more stable correlations were reported between the SSRS Problem Behavior scale and the CBCL-TRF (r = .59 - .81 for related constructs). The parent forms of the CBCL and the SSRS also showed correlations among similar constructs (r =. 50 - .73 Problem Behaviors, and r = .15 - .58 for social competence). The lower correlations can be attributed to method variance, i.e., to differences in how social behavior was assessed. Unlike the SSRS, both the SBA and the CBCL highlight the absence of problem behaviors rather than the presence of positive social behaviors.

The third validity study examined the relationship between the SSRS Elementary Teacher form and the Harter Teacher Rating Scale. The Harter measures five domains of self-perception rather than social skills. Moderate to high correlations were reported, suggesting that students who are rated as well-adjusted on the Harter scale tend to have well-developed social skills, higher academic competence, and relatively fewer problem

behaviors, as measured by the SSRS (r = -.44 - -.66 Problem Behaviors and r = .56 - .70 Social skills). Once again, the total scale scores showed the highest correlations.

Research With the SSRS. In a recent study, the SSRS was used to compare students with learning disabilities, mental impairment, and those who had never been referred (Bramlett, Smith, & Edmonds, 1994). It discriminated between handicapped and nonhandicapped, but could not differentiate group membership according to handicapping condition (i.e., learning disabled vs. mentally impaired). This finding was consistent with work of Gresham, Elliot, and Black (1987) who were able to classify subjects as mildly handicapped or nonhandicapped on the basis of the SSRS with 75% accuracy. Discrimination by the SSRS among the subgroups of mild handicapping conditions (learning disabled, behaviorally disordered, mentally impaired) did not occur. In contrast, another study did find that the SSRS discriminated between severely emotionally impaired, mildly behaviorally disordered, and nonreferred students (Stinnett, Oehler-Stinnett, & Stout, 1989).

An examination of the different demographic, ethnic, and language factors that might affect social skills of preschoolers confirmed a lack of detectable differences on the basis of race and ethnicity. The only differences were those based on the parents' employment status, child's gender, and the language level of the child (Elliot, Barnard, & Gresham, 1989).

In a recent investigation with a Head Start population, Fantuzzo, Manz, and McDermott (1994) used the SSRS to assess the social skills of low income African-American children. The SSRS was found to have three reliable factors: Self-control, Interpersonal Skills, and Verbal Assertion. Reliability coefficients for these factors were .91, .88, and .79. The Problem Behavior Scale showed two factors, Internalizing Problem Behaviors and Externalizing Problem Behaviors (coefficients of .88 and .77 respectively). The SSRS was used successfully by Fantuzzo and his colleagues as a measure of

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convergent and divergent validity in a subsequent study of a play interaction scale (Fantuzzo, Sutton-Smith, Coyle, Manz, Canning, & Debnam, 1994).

Gresham and Elliot (1988) examined the importance ratings teachers assign to the different skills on the SSRS. Skills related to academic functioning ("classroom survival skills") were more important to teachers than the peer-interaction items. The teachers did not vary in their ratings as a function of race (teacher or student), sex, or classification status of student (learning disabled vs. nonhandicapped). Comparisons of the SSRS with sociometric classifications indicated that popular students demonstrated more social skills and fewer problem behaviors than did the children who were classified as rejected by their peers (Stuart, Gresham, & Elliot, 1991).

Behavioral differences between white and Native American preschoolers, and the importance assigned to those skills by their parents and teachers were assessed using the SSRS (Powless & Elliot, 1993). Teachers and parents of Caucasian children rated their children as more socially skilled than did the parents and teachers of Native American children. Teachers and parents of Native American children showed a moderate agreement with one another in their ratings of the importance of social skills. The correlation between Caucasian parents and Native American parents on importance ratings was low, as was the correlation between the importance ratings of Caucasian and Native American teachers. This emphasizes the value of including importance ratings within the ECLS in order to understand the cross-cultural differences that may be present in a classroom.

Developmental Changes. Overall, the social skills literature shows little relationship between social skills and age within the elementary school period. Walker and McConnell (1988) found no correlation between grade level and each of the three subscales of their test of social competence. Findings with the SSRS are similar. Little or no consistent developmental change with age was found across the Social Skills Scales on Teacher or Parent forms for children in grades kindergarten through six. Gresham and

Elliott (1990) conclude that "there do not appear to be any strong, consistent developmental trends in the social skills as assessed by the SSRS" (p. 120). This parallels other research and theory (Cairns, 1986; Pettit, 1992; Stuart, Gresham, & Elliot, 1991). Cairns (1986) asserts that there is a "conservation of social pattern" that dictates increasing resistance to change once a social pattern is established. In other words, once a child has established a pattern of interpersonal interaction, the child seeks to repeat the familiar pattern in new situations and interactions.

The only research on social competence that demonstrates detectable change among elementary students according to age/grade level is in the area of social cognition discussed in direct measures (Feldman & Dodge, 1987). When students in first, third, and fifth grades were presented with three kinds of socially important situations (i.e., initiating entry into peer group, responding to teasing, and response to ambiguous provocation), the children's' ability to interpret peer's intentions and to generate, evaluate, and enact competent responses increased with age. However, interactions between gender, sociometric status, and age indicate the complexity of social information-processing, particularly among children with low sociometric status. In order to chart growth in individual children in the area of social competence, it may be necessary to examine the cognitive processes a child uses to determine appropriate behavior utilizing a direct measure.

Concerns. Although the SSRS has many positive features, it also has several shortcomings. Specifically, we suggest the following modifications to the SSRS in response to concerns about its use in the ECLS.

- Length. The SSRS is one of the briefest instruments available that measures social skills: it requires approximately ten minutes to rate each child. Given the large number of children that will be sampled from each classroom in the base year of ECLS, the time burden on teachers is very important to evaluate. Therefore, as items were added to the SSRS in order to address other concerns, items were eliminated in order to keep the total

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number of items less than the original SSRS (n = 57). The global ratings of academic competence were removed, given that the teachers will rate individual performance of children in the academic areas on the Teacher Questionnaires. Because the factor structure of the SSRS is quite robust, with substantial numbers of items included in each factor, it should be possible to eliminate some items in each factor without seriously impairing the validity of the instrument.

In the original SSRS, teachers complete two parallel scales: one that accounts for frequency of specific behaviors and another that evaluates the importance of those behaviors in specific classrooms. Since research with the original instrument (Gresham & Elliot, 1988) showed that teachers did not vary in their ratings as a function of race (teacher or student), sex, or classification status of student (learning disabled vs. nonhandicapped), in the interest of reducing time burden, we suggest that this information be completed once by each teacher. Accordingly, the "how important" ratings have been placed on a separate form so that the teacher only needs to complete this once for the entire classroom.

- Positive Affect and Behavior. The SSRS does not address several positive areas of functioning. Since positive is not always the opposite of negative (Wasik, Wasik, & Frank, 1993; Aber, 1995) and children who are high in both positive and negative attributes have different developmental outcomes from those that are high in negative only, we added items to address the more positive aspects of affect and behavior, e.g., "Shows enjoyment of learning." "Displays positive mood."

- Approaches to Learning. Although there are several task orientation items on the original SSRS, not all dispositions for learning are addressed, specifically those concerned with approaches to learning. Such items as "Persists in completing tasks.", "Shows creativity in work and play", and "Shows eagerness to learn new things" were added.

• Response Format. Due to negative skew in scores on social skills (98% scored above 27 raw score), Gresham and Elliot used linear interpolation to assign standard scores. We believe that the truncated response format on the original scale may have contributed to this phenomenon. We changed the three point scale to a four point scale and added a "Not Observed" response. This may help discriminate more clearly, increase the range of scores, and alleviate the negative skew.

• Cultural Artifacts. The child whose temperament is slow to warm, who is a follower rather than a leader, or who is raised in a subculture that does not value child assertiveness, could be penalized by the number of items in the original scale that require initiation and self-assertion. Because assertion is associated with peer competence (Schwartz, Dodge, & Coie, 1993; Van Hasselt, Hersen, & Bellack, 1984), we did not eliminate it altogether, but did reduce its presence in the questionnaire. Moreover, many of the items in the original SSRS required substantial inference by teachers. These items were adapted to decrease the amount of interpretation required on the part of the teacher, e.g., "Responds appropriately to peer pressure" was changed to "Firmly and persistently says 'No' to peer pressure to misbehave" and "Responds appropriately when pushed or hit by other children" was changed to "Firmly tells an aggressive peer to stop hurtful acts (e.g., "Stop hitting," or "No pushing")." The importance rating of these items, as judged by both parent and teacher, will help us to clarify potential cultural differences.

• Preschool. The original preschool version is a downward extension of the elementary scale. Consequently, it does not address the developmental level of preschoolers (e.g., items include "Produces correct schoolwork", "Introduces himself or herself to new people without being told", "Appropriately questions rules that may be unfair"). Items were adapted to reflect more accurately the activity of children at this age, e.g., "Easily joins others in ongoing play", "Uses free time in a constructive way", and "Easily adapts to changes in routine."

• Pragmatic Language. The SSRS contains several communication items. However, there are no items that address nonverbal communication, e.g., reading and interpreting social cues. Difficulty in the nonverbal areas of pragmatic communication is an important feature that discriminates the learning disabled and mentally impaired populations from typically developing children (Naidu & Kalyan, 1922; Weller, Strawser, & Buchanan, 1985; Straub & Roberts, 1983). Items were added to address this: "Appropriately uses nonverbal communication (e.g., facial expressions, nods, waving...);" "Is sensitive to the feelings of others."

Summary. Of all the approaches to assessing social competence reviewed above, the SSRS appears to be the most promising for use with the ECLS. It is relatively brief, inexpensive, and easy to administer. It is designed to obtain information from multiple sources (parents, teachers, and students in grade 3 and above). It has a preschool version, although there are questions about its factor structure. It focuses on prosocial behavior and social competence skills, rather than primarily on problem behaviors. The research on the SSRS supports its construct validity and its ability to discriminate between several different population groups. Overall, it is the "most technically well-developed social skills rating system available" (Walker et al., 1991). In response to concerns about the scope of the SSRS, it has been modified and augmented for assessing children's social skills and approaches to learning. Information from the ECLS pilot will further inform the development of this instrument.

Summary of Indirect Measures

Social competence is a multi-determined psychological construct that combines social action with social knowledge or judgment. For more than a generation researchers have proposed a range of definitions for social competence that incorporate such intraindividual characteristics as kindness, cooperation, interest expressed in people and things, and pragmatic language abilities, along with a focus on the child's interactions with others. Numerous approaches to measurement have been put forward, some of

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which are highly time-intensive and complex to use. Of all the rating scales that have been devised to measure this construct, the Social Skills Rating System (SSRS), with its tripartite focus on social skills, problems, and academic competence comes the closest to meeting sound theoretical and empirical criteria. The SSRS has significant potential for use in the ECLS.

II. Adaptive Behavior

Definition

Adaptive behavior was originally studied in assessments of mentally impaired individuals. Recently, adaptive behavior has been examined in other populations, including those with learning disabilities (Strawser & Weller, 1985); children from divorced families (Guidubaldi & Perry, 1985); and children in foster care (Hochstadt et al., 1987; Pearson & Lachar, 1994). Deficits in adaptive behavior were noted for children in these groups when compared with nondisabled children from intact families.

The American Association on Mental Retardation (AAMR) defines adaptive behavior as "the quality of everyday performance in coping with environmental demands. . . . Adaptive behavior refers to what people do to take care of themselves and to relate to others in daily living rather than the abstract potential implied by intelligence" (Grossman, 1983, p. 42). It concerns the "effectiveness with which individuals meet expected standards of personal independence and social responsibility based on age and cultural factors" (Barnett & Zucker, 1990). AAMR has identified ten areas of adaptive behavior: communication, home living, self-care, health and safety, self-direction, community use, leisure, functional academics, work, and social skills.

Assessments

Traditionally, adaptive behavior was assessed by interviewing the individual's primary caregiver personally (Doll, 1965). More recently, lengthy questionnaires have been developed. Standardized instruments that are in current use include the following:

1) Adaptive Behavior Inventory for Children (ABIC; Mercer & Lewis, 1979)

2) Adaptive Behavior Inventory (ABI; Brown & Leigh, 1986)
3) Scales of Independent Behavior (SIB; Bruininks, Woodcock, Weatherman, & Hill, 1984)
4) Vineland Adaptive Behavior Scales (VABS; Sparrow et al., 1984; 1985).
5) American Association on Mental Retardation Adaptive Behavior Scales (ABS; Lambert, Nihira, & Leland, 1993)

The ABIC is part of the System of Multicultural Pluralistic Assessment (SOMPA; Mercer, 1979). SOMPA was designed to avoid cultural bias in the assessment of adaptive behavior. Toward that end, school-related behaviors were intentionally excluded. The ABIC shows very little correlation with intellectual ability (diSibio, 1993). The ABIC was standardized solely on children from the state of California and has not been revised, thus the norms are rather dated at this time. For these reasons, it was not examined in depth.

The Adaptive Behavior Inventory (ABI) has a lower age range (5.0-18.11) that is too limited for our purposes. Since the ECLS will enroll some children who enter kindergarten before the age of five, and since a Head Start cohort is included as well, a five year old basal will limit the data that can be collected as a baseline. Moreover, the ABI is a lengthy instrument and does not include a sensory or motor component. Because motor development is not assessed on measures of social skills, but has been found to correlate with popularity as well as to be important for the development of self-help skills, this is a weakness of this instrument. The information available concerning its psychometric properties is acceptable. However, the lower limit of the age range and lack of a motor component led to rejection of this instrument.

The Scales of Independent Behavior have poor test-retest reliability and some less-than-acceptable internal reliability coefficients. It also has a potentially confusing response format (Evans & Bradley-Johnson, 1988).

The Vineland Adaptive Behavior Scales (Sparrow, Balla, & Cicchetti, 1984; 1985) are available in a survey form, an expanded form, and a classroom edition. The Vineland scales are the most widely-used instrument in the field of adaptive behavior (Pearson & Lachar, 1993). The Vineland Adaptive Behavior Scales-Classroom Edition (VABS-CE; Sparrow, Balla, & Cicchetti, 1985) is standardized on children aged 3 - 12.11 and is the most recent addition to the Vineland Behavior Scales. The VABS-CE has adequate psychometric properties (Harrison, 1985). However, the Classroom Edition does not present separate interrater or test-retest reliability. Unlike the other Vineland scales, the VABS-CE is administered as a questionnaire rather than in interview format. The Vineland scales are available in Spanish. It is lengthy (244 items), and Kamphaus (1987) contends that some items may be interpreted incorrectly by teachers. Many items are well below the developmental level of children in kindergarten, e.g., "imitates sounds of adults within a few seconds of hearing them", "sucks or chews on crackers", "imitates simple adult movements, such as clapping hands or waving good-bye", "uses common household objects for play". Other items would not be known to most teachers, e.g., "makes own bed correctly", "sweeps, mops or vacuums floor completely, without assistance, when asked", "puts clean clothes away without assistance, when asked". Thus, length and content render the Vineland Scales of questionable value for the ECLS.

The American Association on Mental Retardation Adaptive Behavior Scales were recently revised and restandardized on a large representative national sample of mentally impaired (n = 2,074) and non-mentally impaired (n = 1,254) individuals aged 3.3 to 17.2 years. Item analysis was performed to determine items to include. Overall, test-retest reliability was demonstrated as adequate. Excellent interrater reliability was demonstrated when the same individual was interviewed. Different raters (teacher and aide) yielded correlations of .51 - .92. Administration time for interviewing a teacher regarding a five year old ranges from 30 - 60 minutes for Part One. Some of the items are yes/no format. Many of the items contain descriptions of behavior in which the rater is asked to indicate

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the highest level achieved by the child. According to the manual, the scores on the subdomains do not convert to normative scores. The items in Part Two of the scales (n = 37) examine more extreme maladaptive behaviors (e.g., self-abusive behaviors, inappropriate physical contact). Similar to the VABS-CE, the ABS also requires information that may not be known by the teacher in a regular education classroom (e.g., how the child cares for his/her room at home, does laundry, sets table, washes dishes). The length, content, and interview format of administration render this instrument of questionable use to the ECLS.

Summary: Adaptive Behavior

Increasingly in the study of adaptive behavior, emphasis has been placed on the social competence of the child, as this is proving to be more crucial for successful functioning in the community than is the negotiation of the physical world, or self-help skills (Greenspan & Granfield, 1992; Pearson & Lachar, 1994). Social competence had a prominent role in the initial conceptualizations of adaptive behavior but Greenspan and Granfield (1992) argue that the maladaptive behaviors, measured by such current adaptive behavior instruments as the VABS and the ABS are more indicative of psychopathology than of social competence. Social intelligence and such social skills as perspective or role taking, social judgment (empathic judgment, person perception, moral judgment, referential communication), and social problem solving (interpersonal tactics) are particularly deficient in individuals who are unable to reside and work in normalized settings. These skills are not assessed on the adaptive behavior scales, but they are of particular interest in the data to be collected for the ECLS. Hence, adaptive behavior scales are not recommended for use in the ECLS.

III. Learning Styles and Approaches to Learning

The Technical Planning Subgroup of the National Education Goals Panel (NEGP) defined "approaches to learning" as the "inclinations, dispositions, or styles rather than skills that reflect the myriad ways that children become involved in learning, and develop

their inclinations to pursue it. . . . Curiosity, creativity, independence, and persistence are some of the kinds of approaches that enhance early learning and development." These approaches are mediated by cultural, gender, and temperament differences among children. Katz (1985) defines dispositions as "relatively enduring 'habits of mind' or characteristic ways of responding to experience across situations. Examples of dispositions include curiosity, humor, creativity, affability, and quarrelsomeness" (p. 1). It is of interest to note the overlap between this statement about "dispositions" and some of the competency statements reproduced in the Anderson and Messick (1976) paper that are listed at the outset of this paper.

Nevertheless, the concept of approaches to learning, or dispositions to learning tends to be rather vague and open to multiple interpretations. Some children may have a preference for learning through a given modality (visual vs. aural vs. kinesthetic). Others may demonstrate differences with regard to structure in their learning activities; preferences for solitary vs. cooperative work, or quiet vs. noisy environments; approaches to problem solving (e.g., action-oriented or more reflective in nature); different tolerance levels for frustration; and differing levels of mastery orientation.

Examination of current instrumentation demonstrates how elusive uniform definition is in the area of learning styles. None of the instruments (see Appendix A) addresses the issue of dispositions or approaches to learning as defined by Katz or the NEGP. The current instruments emphasize either particular psychological theories (e.g., the Learning Preference Inventory), hemispheric preferences (e.g., Style of Learning and Thinking, Gordon's Cognitive Laterality Battery), or preference for modality, social vs. individual learning, and such environmental preferences as amount of lighting or noise (e.g., Learning Style Inventory, Reading Style Inventory). Most of these instruments are designed for children over the age of eight with the exception of the Reading Style Inventory which has a version that is designed to begin with first grade.

The psychometrics of these instruments range from non-existent to highly questionable (Bishkin, 1992; Goldman, 1992; Hughes, 1988; Jenkins, 1992; Kiewra & McShane, 1992; Robertson & Brown, 1992; Westman, 1988; Wright, 1992). The Reading Styles Inventory has the most positive reviews, but more construct validity studies are needed (Benson, 1992; Corkhill, 1992). The research involving these instruments consists of case studies, unpublished research (much of it in dissertations), and ERIC documents (Snider, 1992). Reviews of literature on modality matching have not been supportive of this construct either (Kavale & Forness, 1987, cited in Snider, 1992; Tarver & Dawson, 1978, cited in Snider, 1992).

In addition, with the exception of the Reading Styles Inventory, which has a special edition for children under eight years of age, the learning style instruments are all self-report. Problems with reliability in self-report instruments with young children are legion (Foster et al., 1993; Harter, 1990; Zimet & Farley, 1987). Gresham (1986) notes that for young children (CA<8) self-report measures have "abysmal validity evidence " and "should not be used . . . until and unless more convincing data are available to support their use" (p. 163).

In short, none of the currently available learning style instruments meets the needs of the ECLS. In addition to psychometric considerations, the structure of these instruments does not correspond with the definition of "dispositions for learning" that has been proposed by the Resource Panel of the NEGP. In the absence of existing instrumentation, we suggest the use of adjective definers in a rating scale as an acceptable way to examine approaches to learning. Placing adjective definers regarding curiosity, humor, inventiveness, independence, persistence, and creativity at opposite ends of scales, or using them to develop specific rating scales may be a useful way to understand the personality of the child and the dispositions they bring to the learning process.

IV. Conclusion

Children's social competence is strongly influenced by their first socialization experience—the family (Cohn, Patterson, & Christopoulos, 1991; Pettit, Harrist, Bates, & Dodge, 1991). Over time, children extend their social milieu to extrafamilial settings and increase their peer competency skills, prior to their entry into public school (Howes, 1987). Thus, they enter school with social interaction patterns that are already well established and appear to be relatively resistant to change (Cairns, 1986; Pettit, 1992). Adapting to the school environment may be unproblematic for the child who is socially competent. The child who is not socially adept will require schools that respond to this need if the child is to experience success in that environment. This is especially significant in view of the fact that social skills necessary for the school environment predict the student's later achievement (Clark, Gresham, & Elliot, 1985; Reschly, Gresham, & Graham-Clay, 1984; Parker & Asher, 1987; Swartz & Walker, 1984).

The Early Childhood Longitudinal Study is designed to provide research and data "to increase our understanding of the dynamics of school achievement, particularly those factors that contribute to the differential achievement of important subgroups of the population" (NORC, 1993, p. 2-1). Because social competence is a crucial factor in contributing to differences in achievement, any study that seeks to examine variables contributing to achievement must carefully consider the student's social skills.

The Social Skills Rating System (SSRS) corresponds most closely to the needs of the ECLS. Most of the social skills that researchers describe as important for success with peers and school are included on this scale. Behavior problems that might interfere with social competence are rated and some adaptive behavior areas are addressed. Competence in different communication skills is included among the social behaviors that are rated, as are work and social skills. Task orientation, which is among the most significant of the dispositions for learning, is addressed on both the parent and teacher checklists, although

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other dispositions would need to be added. As noted, the adaptive behavior area not addressed by the SSRS that was found to be significant in the research literature is motor skills. A global measure of motor development could be added to the SSRS, or the motor domains from the Vineland could be used to supplement the parent report instrument.

In addition to adding other dispositions for learning to both parent and teacher questionnaires, some assessment of the social validity of these dispositions should also be administered, particularly in the home. The use of an importance rating—as is the case on the SSRS overall—should suffice for this purpose.

In summary, the Social Skills Rating System, with some augmentations and adaptations, should address the relevant skills and behaviors that predict a child's social competence, adaptive behavior, and disposition for learning. The SSRS is the most psychometrically sound instrument of social skills available and clearly the most closely aligned with the goals of the ECLS. In the pilot study, the ECLS could administer the Feelings about School and hypothetical problem sets to determine if they provide sufficient additional information to warrant their inclusion in the battery of instruments.

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Appendices

A. Direct Measures

B. Behavior Problem Measures

C. Social-Emotional Measures

D. Adaptive Behavior Measures

Appendix A. Direct Measures

Name of Measure	Short Description	Method of Administration	Comments
Loneliness and Social Dissatisfaction Scale (Cassidy & Asher, 1992)	Assesses child's perceptions of peer relationships and social adequacy	Self-report; young children answer yes/no/sometimes; older children use Likert scale	Discriminates children with low peer acceptance; single factor with low to moderate correlations (.25-.58)
Martinek-Zaichkowski Self Concept Scale for Children [MZSCSC] (Martinek & Zaichkowski, 1977)	Global measure of self-concept; home and family relationships; ability in recreation; personal and social characteristics in school; personality traits and emotional tendencies; satisfaction and happiness	Self-report; 25 items	Requires minimal to no reading of English; some items load onto more than one factor
My Family and Friends (Reid, Landesman, Treder, & Jaccard, 1989)	Assesses the perceptions of social support of 6-12 year old children; areas include emotional support, information support; instrumental support; and companionship	Structured interviews of child using 12 dialogue scripts; involves ranking individuals and rating satisfaction Administered in two 15 minute sessions within 10 days	Child ranks people to whom he/she would go for each type of support (e.g. "When you want to share your feelings, which person do you go to most often?"); then child rates satisfaction with support provided by that individual under those circumstances. Children experiencing family upheaval had markedly different ratings between test sessions.
Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1980-1983)	Taps cognitive competence; physical competence; peer acceptance; maternal acceptance	Self-report; direct administration to child: 4 point scale using two pictures with small and large circles under each; child identifies which picture is like him; then if it is a little or a lot like him	Teacher rating scale that parallels child instrument is available; limited standardization sample: 255 white, middle SES (Harter & Pike, 1984)

Appendix A. cont'd.

Name of Measure	Short Description	Method of Administration	Comments
Piers-Harris Children's Self-Concept Scale-Revised (PHCSCS) (Piers, 1984)	Assesses child's self concept regarding: behavior; intellectual and school status; physical appearance and attributes; anxiety; popularity, happpiness and satisfaction; yields overall and cluster scores	Self-report measure; 80 item questionnaire; gives response bias index and inconsistency index; "how do you feel when...?")	Cluster scales are not independent; some of the items are not included in the cluster scores; most frequently cited self-concept measure in research (Burns & Christenberry, 1990)
Pupil Evaluation Inventory (PEI; Pekarik, Prinz, Liebert, Weintraub, & Neale, 1976)	Assesses aggression, popularity, and social withdrawal	Peer nomination	Peers nominate up to four of their peers who are best described by each of the items; internal consistency and test-retest reliability are satisfactory
Structured Pediatric Psychosocial Interview (Webb, T. E., & Van Devere, C. A., 1979-1985)	Helps children express concerns and distress; assists in determining abnormal levels of stress	Structured interview of child with 50 broad questions, 169 follow-up questions	Four scales: feeling, relating, thinking, and impetuosity; normed on children in public school in NE Ohio; provides norms based on gender of the interviewer; wide range of reliability coefficients.
Tell-Me-A-Story [TEMAS] (Costantino, G., Malgady, R. G., Rogler, L. H.,1986-88)	Identifies personality characteristics; a clinical tool	Child tells story about picture cards	Similar to other clinical projective instruments; psychometric properties are not as good as other projective instruments (Lang, 1992)
Young Children's Feelings About School (FAS; Stipek, Feiler, Daniels, & Milburn, 1995)	Assesses sociomotivation	Self-report (16 item); measures aspects of sociomotivation; factors: perceived competence in school activities; attitude toward school; and anxiety about school	Sensitive to differences in observational measures of the quality of child care and nature of instruction Alphas range from .47-.57 (competence), .73-.74 (attitude), and .63-.65 (anxiety). Test-retest reliability .41-.65 for children aged 4-6 years Perceived competence scale under revision

Appendix A. cont'd.

Name of Measure	Short Description	Method of Administration	Comments
Sociometric nominations (Howes, 1987)	Examines popularity and friendship patterns (peer competence)	Each child hands examiner pictures of their 3 best friends, and 3 children with whom they are not friends	Test-retest reliability not high enough to justify social status classification Requires pictures of every child for young children High predictive validity with children above eight years old
Sociometric ratings (Howes, 1987)	Examines popularity (peer competence)	Children place pictures of each of their classmates in small, medium, or large bowls to indicate how much they like that child. Ratings averaged. Examines popularity and indicates interpersonal competence.	Linear increase in test-retest reliability with age from .76 to .84 (CA = 3 yrs. to 6 yrs.) Requires pictures of every child Unstable peer groups may be problematic Presents unique information about child's functioning related to peer acceptance Peer ratings have stronger relationship to peer descriptors than do peer nominations
Response Generation derived from Social Problem Solving Measure (Dodge, 1990-1995)	Measures social cognitive ability. Assesses child's ability to assess problem and generate solutions When using Cartoon stimuli, involves listening comprehension When using video stimlui, can also assess ability to read social cues	Using cartoon stimuli and/or video, children are presented with interpersonal dilemmas, the solutions generated by the child are coded and tabulated (up to ten)	Number of solutions generated increases with age Type of response generated (aggressive, non-aggressive-inept, or competent) predicts peer and teacher rated aggression, externalizing behavior problems and home ratings of aggression Typically, this measure is administered as part of a much larger interview assessment Would help differentiate those children who do not have good social skills from those who do not use them

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Appendix B. Behavior Problem Measures

Name of Instrument	Ages	Purpose	Method of Administration	Comments
ACQ Behavior Checklist (Achenbach, Conners, & Quay, 1983)	4-16 yrs.	Records problems and competencies in children's behavior; most scales address problem behaviors	Teacher and parent (and child over 11 years) rating	Includes items from the Achenbach (1981) Child Behavior Checklist (CBCL), the Conners (1978) Parent Questionnaire (PQ), and the Quay-Peterson (1982) Revised Behavior Problem Checklist (RBPC), as well as 55 new items . The competence portion of this instrument was adapted from the CBCL. Achenbach and associates (Achenbach, Howell, Quay, & Conners, 1991) noted that the competence section showed interactions with socioeconomic level especially in the nonclinic population. Regional differences were noted on the Activities scale.
Behavior Evaluation Scale-2 [BES-2] (McCarney & Leigh, 1990)	Grade K-12	Assesses learning problems, interpersonal difficulties, inappropriate behavior, unhappiness, physical symptoms/fears	Checklist completed by school personnel; seven point scale (never or not observed to continuously throughout the day)	Takes approximately 20 minutes to complete; detailed instructions given; large representative, normative sample (n=2,272); more criterion related validity evidence needed (Bruno & Walker, 1990)
Child Behavior Checklists [CBCL] Child Behavior Checklist; Teacher Report Form (TRF); Youth Self-Report (YSR) (Achenbach & Edelbrock, 1988)	2-18 years	Records problems and competencies in children's behavior; most scales address problem behaviors	Parallel rating scales for parent, teacher and child over 11 years old; rates the degree to which these statements are true about the child in the last 6 months: (0=not true; 1=somewhat or sometimes true; 2=very true or often true)	Very widely used in research; empirically based; strong psychometric properties; well designed, conceptual and empirical basis; items are worded at 5th grade reading level; norms are available by age group and by gender; 118 items are problem behaviors, 20 items are social competency items; manuals are "user-friendly" (parent form and youth form) (Christenson, 1992); Elliot (1992) stated that the standardization sample, while large, was not representative of U.S. population; TRF can be completed in about 20-25 minutes

Appendix B. con't.

Name of Instrument	Ages	Purpose	Method of Administration	Comments
Conner's Rating Scales (multiple versions): Conner's Teacher Rating Scales (Conners, 1969, 1973); Revised Conners Teacher Rating Scale (Goyette et al., 1978); Abbreviated Symptom Questionnaire or Hyperacitvity Index (Goyette et al., 1978); Iowa Conners Teacher Rating Scale (Loney & Milch, 1981); Conners Parent Rating Scale Revised (CPRS-R, Goyette, Conners, & Ulrich, 1978) Abbreviated Parent/Teacher Questionnaire (Conners, 1985)	Grade PreK-Elem	Evaluates the reported problem behaviors of a child	Parent and teacher rating scales; teacher version 28 or 39 items; parent versions 48 or 93 items	Computerized version available; parent and teacher scales are not parallel; In a study by Beck et al. (1985), the teacher ratings of social competence did not predict positive peer relationships; lack of discriminant ability (e.g., between conduct problems and hyperactivity) (Martens, 1992; Oehler-Stinnett, 1992)
Emotional Behavior Checklist [EBC] (Dial, Mezger, Massey, McCarron, 1986)	children - adults	Assesses overt emotional behavior: Frustration/ impulsivity; anxiety; depression/withdrawal; self-concept; socialization; aggression; reality orientation	Behavior checklist: 35 items each with 3 ratings based on observation of someone who sees child frequently	Normed on largely disabled population; only 92 nondisabled; nonrepresentative sample; caution is advised in drawing inferences from scores (Stock, 1990)
Eyberg Child Behavior Inventory (ECBI, Eyberg, 1980)	2-16 yrs.	Assesses problem behaviors; yields an intensity score and problems score	Parent report in area of conduct and oppositional disorders	Recommended for use as a descriptive measure rather than screening or evaluation (Reed, 1985)

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Appendix B, con't.

Name of Instrument	Ages	Purpose	Method of Administration	Comments
Preschool Behavior Questionnaire (Behar & Stringfield, 1974)	PreK 3-6 yrs.	Assesses hostile/ aggressive; anxious; and hyperactive-distractible behavior	Teacher rating scale	Paired with a children's behavior questionnaire reportedly suitable for longitudinal and cross-cultural competencies preK to 8th grade (Tremblay, et al, 1987)
Revised Behavior Problem Checklist (Quay & Peterson, 1983, 1987)	Grades K-12	Identifies psychopathology: conduct disorders, aggression, attention problems, anxiety/withdrawal, psychotic behavior, motor excess	Parent, teacher , or other person who knows child well rates behavior from 0 (not a problem or don't know) to 2 (severe problem); 89 items	Standardization was not national or representative; no differentiation between "not a problem" and "don't know"; cautious interpretation of the results and development of local norms is recommended (Dezolt, 1992; Shapiro, 1992); Twelve times are not scored; Majority of items observable in school setting; multiple raters advised (Simpson, 1990)
Revised Children's Manifest Anxiety Scale (Reynolds, & Richmond, 1983)	6-19 yrs	Assesses level of anxiety; Factors include total anxiety; physiological anxiety; worry/ oversensitivity; social concerns/ concentration; lieing scale to assess for honesty of responses	37-item self-report; yes/no response; read to children below third grade reading level	Representative nationwide standardization sample (incl. handicapped); requires understanding of double negative (Stewart, 1989); most of the subscale alpha coefficients fall below .80 (Gresham, 1989)
Social Behavior Assessment (SBA) (Stephens, 1978)		Assesses social behaviors in four subdomains: Self-Related Behaviors, Interpersonal Behaviors, Task-Related Behaviors, Environmental Behaviors; also yields a total score	Teacher rating of 136 social skill behaviors	High scores indicate behavior problems; has been shown to be valid and reliable (Gresham & Reschly, 1987; Stumme, Gresham, & Scott, 1982, 1983; Janke & Lee, 1991)

Appendix B. con't.

Name of Instrument	Ages	Purpose	Method of Administration	Comments
Social-Emotional Dimension Scale [SEDS] (Hutton, J. B. & Roberts, T. G., 1986)	5.5-18.5	Assesses non-academic problem behaviors: avoidance of peer interaction, aggressive interaction, avoidance of teacher interaction, depressive reaction, physical/fear reaction (also yields total score)	Ratings by school personnel, usually teacher; uses 3 point scale (never or rarely, occasionally, or frequently) 32 items	Minimum of 3 weeks of observation required before completing scales, manual has detailed instructions; intended to be used as a screening or in conjunction with other instruments; adequate psychometrics - reliability and validity of total score is good, the subscale scores have questionable reliability and validity (Kirnan, 1992)
Stress Response Scale [SRS] (Chandler, L. A., 1979, 1986)	Grades 1-8; Ages 5-14	Assesses the emotional status of children referred for adjustment problems	Rating scale completed by teacher or parent ; 6 point (0=never, to 5=always); 40-items	Identifies child as dependent, impulsive, passive-aggressive, or repressed; not as behaviorally anchored as the Child Behavior Checklist; norms available by age and gender (Kelley, 1992).
Test of Early Socioemotional Development [TOESD] (Hresko & Brown, 1984)	3-7.11 yrs	Measures socioemotional deficits	Ratings scales: parent; teacher; student Optional sociogram	Reliability is not provided for the sociogram, norms based on preschool populations in early childhood placements; limited age range
Waksman Social Skills Rating Scale (Waksman, 1985a)	Grades K-12	Screens for social skills deficits; 9 items describing "aggressive"; 12 items describing "passive"	Teacher or counselor or caregiver rate on 4-point scale (never to usually); 21 items	Limited normative sample (n=331); very limited psychometric information; examines behaviors that would be unacceptable to teacher, e.g., "interrupts others", "fails to acknowledge criticism," " speaks in a demanding voice", "avoids asking for help", "avoid joining others", "has difficulty making decisions", titles of the 2 subscales (aggressive and passive) could bias examiner (McGinnis, 1989)

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Name of Instrument	Ages	Purpose	Method of Administration	Comments
Walker-McConnell Diagnostic Test of Social Competence and School Adjustment (Elementary version, 1988) (Adolescent version, 1990)	Grades K-6	Identifies social skill deficits; 4 scores: teacher preferred social behavior; peer preferred social behavior; school adjustment (school adaptive behavior); (also yields total score)	Individual ratings by teacher	Large interscale correlations; only has 1 norm table, i.e., norms are not provided by age or gender; low interrrater reliability; strong internal consistency; many validity studies - not all of them supportive. (Grill, 1992; Constantine, 1992)Earlier version Walker Problem Identification Checklist, Revised (Walker, 1983) used by Bender & Golden, (1988); no longer available from publisher.

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Appendix C. Social-Emotional Measures

Name of Instrument	Ages	Purpose	Method of Administration	Comments
Behavioral Academic Self-Esteem Scale [BASE] (Coopersmith & Gilbert, 1982)	Grades PreK-8	Assesses five factors and total: student initiative, social attention, success/failure, social attraction, self-confidence; success in academic settings only (specific areas, not global)	Ratings completed by an observer who should have minimum of 5-6 weeks observation of child; usually teacher-report	Norms by gender and age (for K-8, age only for the 4 year olds); uses Coopersmith's theory of self-esteem; classifes into low, moderate, and high self-esteem; weak correlation of predictive validity at the K level; validity on subscales is lower than on total; no criterion validity; addresses successes in academic settings only (specific areas, not global) Burns & Christenberry, 1990
Coping Inventory (Zeitlin, 1985)	3-16 yrs	Rates adaptive behavior and coping style (productive, active, flexible)	Observation rating scale 1-5 (not effective, to effective most of the time)	Not correlated with adaptive behavior measures
Health Resources Inventory [HRI] (Gesten, 1976)	Grades 1-3	Measures personal and social competence; five factors (and a composite score): good student; gutsy, adaptive assertiveness; rules; peer sociability; frustration tolerance	Teacher rating scale; 54 items; 5-point scale	Standardized on a small normative sample (N=592) of children in grades 1-3 in Rochester, New York; has been used with older children; limited psychometric information; items are positively worded, e.g."Is a self-starter," "Does original work","Is able to question rules that seem unfair or unclear to him", "Is polite and courteous," "Is well behaved in school","Is affectionate toward others," "Copes well with failure"

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Name of Instrument	Ages	Purpose	Method of Administration	Comments
Iowa Social Competency Scales [ISCS] (Pease, D., Clark, Crase, 1976, 1982)	3-12 yrs. old	Developed for research; parent rating of child's social behavior (competencies) in the family environment	Rating scales for mother and father; on the basis of observations parents rate (1-5) how their child compares to "average child" ; preschool also has a combined scale (mother and father forms combined)	This is an adaptation of the Devereaux Elementary School Behavior Rating Scale; Preschool scales are less reliable; no reliability available for the Combined Preschool scale; school age scales are better researched; includes items on social behavior within family and neighborhood environments; lacks normative data (Miller, 1989); Factors on mother's form (preschool): social activator; hypersensitive, reassurance, uncooperative, cooperative; Father's form(preschool): Social activator, hypersensitive, reassurance, socially inept, attentive;
Kohn Social Competence Scale; Kohn Problem Checklist (Kohn,1986b; Kohn, 1979; Kohn, 1977)	3-6 years	Assesses social competence including cooperativeness, rule compliance; yields two factors: Interest-Participation vs. Apathy-Withdrawal; and Cooperation-Compliance vs. Anger-Defiance	Teacher rating scale; 73 items; 7 point scale; a modified 64 item, five point rating scale for half-day Kindergartens also available	Drabman (1986) reported this instrument to be reliable, valid, and a "reasonable research tool." (p.798); both instruments (the Kohn Problem Behvaior and Kohn Social Competence) should be used for enhanced reliability (Carroll, 1985)
Matson Evaluation of Social Skills for Youngsters (Matson, Rotatori, & Helsel, 1983)	4-18 yrs.	Assesses social skills, inappropriate assertiveness, impulsivity, jealousy, withdrawal, confidence	Teacher rating and self-report	Has been used with sensory handicapped groups (i.e., visually impaired, hearing impaired); factor loading range from .13 to .65 on self-report, .35 to .87 on teacher report (Matson & Ollendick, 1988)

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Name of Instrument	Ages	Purpose	Method of Administration	Comments
Penn Preschool Play Scale (Fantuzzo, Sutton-Smith, Coyle, Manz, Canning, & Debnam, 1994)	Grade PreK - 2	Assesses interactive play behaviors. Yields three factors: Peer Interaction, Disruption, Disconnection	Teacher and parent rating scale, frequency ratings on 36 items	Includes play behaviors that reliably distinguished between children perceived to engage in high level vs. low level interactive school play; Developed using a sample of urban African-American Head Start children (n=312) Concurrent validity established using the Social Skills Rating System; high interrater reliability (.88)
Personality Inventory for Children-Revised (Wirt, Lachar, Klinedinst, Seat, Broen, 1977)	3-16 years	Develops "comprehensive and clinically relevant descriptions of child behavior, affect, cognitive status,..family characteristics"; 480-600 items	600 true/false items completed by an adult who lives with the child (norms based on maternal response)	Has been compared to the adult MMPI; original PIC was normed on a large (n=2,390) though non-representative population; very small preschool sample; reliability correlations are variable; validity studies indicate it is "promising with regard to grouping and classification of children with psychological disorders," but problematic in other areas (Reynolds, 1985, p.1156); Pearson and Lachar (1994) used the PIC-R to predict adaptive behavior on the Vineland
Preschool and Kindergarten Behavior Scales (PKBS; Merrell, 1994)	3-6 years	Screens and assesses behavioral, social, and emotional problems; Social Skills has 3 subscales: Social Cooperation, Social Interaction, and Social Independence; Problem Behavior subscales include Self-centered/Explosive, Attention Problems/Overactive, and Antisocial/Aggressive	Teachers and parents rate 34 social skills and 42 problem behaviors on a 4-point frequency scale (0=never to 3=often)	National normative sample of 2,855 preschool and kindergarten children but only 89 three year old girls (and 110 three year old boys); since all the children in the normative sample were in school placements, caution should be used when interpreting the scores of children who have not had group experiences; high internal consistency, reliability and stability adequate; interrater reliability low to moderate; significant group differences found on basis of age, gender, and disability status; shows developmental increase in skills and decrease in problem behaviors from three to six years old

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Name of Instrument	Ages	Purpose	Method of Administration	Comments
Psychological Skills Inventory (Strayhorn, 1990)	Grades PreK-adult	Assesses 22 psychological skills, e.g., honesty, trust, positive affect, self-control, flexibility, delay of gratification	Teacher questionnaire; 66 items	Strayhorn, Weidman, & Majunder (1990) used this scale with a Head Start population (n=201); alpha coefficient=.97; intraclass correlation=.76; requires that inferences be made about behaviors, [e.g. "getting satisfaction out of accomplishments", "being honest when it is difficult to be honest", "experiencing glee", "demands more insight from the informant than do symptom checklists" (p.476).
Scale of Social Development [SSD] (for deaf and multi-handicapped) (Venn, Serwatka, Anthony, 1987)	Birth to 6 years	Identifies strengths, weaknesses, and gaps in social and adaptive behavior	Direct observation; five levels (resistive to independent), screening form= 48 items; full scale = 120 items	Screening and comprehensive forms; focuses on adaptive behavior; no normative data; used with special population; items were chosen after a review of 17 social and adaptive scales; Criteria for item inclusion: little or no verbal performance, observable by examiner, appropriate for intervention, relate directly to social development; scoring guidelines are open to interpretation (McConnell, 1992)
Social Skills Rating Scale (Gresham, F. M. & Elliot, S. N., 1990)	Grades PreK-12th	Assesses social skills (cooperation, assertion, responsibility, empathy, and self-control) and prevalence of problem behaviors; global assessment of academic competence	Teacher, parent, and child questionnaires Frequency is rated on 3 point scale (never, sometimes, very often)	Teachers and parents also rate the "importance" of the skill (social validity); separate norms tables for males and females; items on the social skills portion are positively worded, e.g. "initiates conversations with peers", "responds appropriately to peer pressure". Excellent psychometric information. Norms for handicapped and nonhandicapped.

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Appendix C. con't.

Name of Instrument	Ages	Purpose	Method of Administration	Comments
Temperament Assessment Battery for Children (Martin, R. P.,1988)	3-7 years	Assesses temperament differences using 6 of the 9 Thomas and Chess dimensions	Teacher and parent forms have 48 items; 1-7 scale (hardly ever to almost always); clinician form has 24 items	Behavioral Styles Inventory (McDevitt & Carey, 1978) and Thomas, Chess, & Korn Questionnaires reportedly better instruments; very limited normative data (MacPhee, 1992; Wright & White, 1992)
Taxonomy of Problematic Situations for Children (TOPS) (Dodge et al., 1985)	Grades 2-4	Assesses the perceptions of the teacher regarding the severity of children's difficulties in social situations	Teacher rating on 5 point scale; 60 items	Includes social situations that have been proven to relate to peer competence/ rejection, e.g. response to peer provocations, peer group entry. Teacher rates how often a child is likely to respond inappropriately in a given situation. Eight subscales are peer group entry, response to provocation, response to success, response to failure, social expectations, teacher expectations, reactive aggression, and proactive aggression

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Appendix D. Adaptive Behavior Measures

Name of Instrument	Age	Purpose	Method of Administration	Comments
Adaptive Behavior Inventory (ABI) (Brown & Leigh, 1986)	5-18	Assesses self-care, communication , social, academic, and occupational skills	Checklist completed by teacher or other professional (25 minutes); 150 items (30 per scale)	Short form has only 50 items; no sensory and motor components; no maladaptive behaviors; lack of test-retest data; ability of ABI to discriminate children with decreased IQ and achievement demonstrated; item analysis used to choose items; internal consistency coefficients above .85 for all scales (Evans & Bradley-Johnson, 1988)
Adaptive Behavior Scales-School Edition:2 [ABS-S:2] (Lambert, Leland, & Nihira, 1993)	3-21	Assesses personal independence, coping skills, language development, physical development, socialization, daily living skills; social maladaptation	Interview of or rating by someone who has personal knowledge	Originally developed by AAMD/AAMR item analysis used to choose items; Three types of items: 1) rater circles the highest level task that the person can usually do; 2) rater answers yes or no in response to whether the student can complete the task successfully; 3) indicates the frequency with which specific problem behaviors occur (never, occasionally, frequently). Subdomain scores are for informational use only and cannot be converted to normative scores; Computer scoring system available.
Checklist of Adaptive Living Skills (CALS) (Moreau & Bruininks, 1991)	Birth-adult	Assesses personal living, home living, community living, and employment skills	Checklist of 800 items completed through interview of individual who knows child well	Criterion-referenced; similar to Scales of Independent Behavior; items are checked if child does independently
Scales of Independent Behavior [SIB] (Bruininks et al., 1984)	Birth-adult	Assesses motor skills, social interaction and communication skills, personal living skills, community living skills, and scales of maladaptive behavior	Structured interview; 45-60 minutes; may administer selected subscales	Less than the recommended 100 subjects per age in the normative sample; sample also not representative of the census data; item analysis used to choose items (Evans & Bradley-Johnson, 1988)

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Appendix D. cont'd.

Vineland Adaptive Behavior Scales [VABS] Expanded and Survey Form (Sparrow, Balla, Cicchetti, 1984b)	Birth to adult	Assesses communication, daily living skills, socialization, motor skills, and maladaptive behavior	Semi-structured interview of parent or caregiver; 577 & 297 items; 60-90 & 20-60 minutes (expanded & survey)	Expanded form was not administered during standardization, reliability and validity are based on the survey form (Evans & Bradley-Johnson, 1988)
Vineland Adaptive Behavior Scales - Classroom edition [VABS -CE] (Harrison, 1985)	3-12.11 yrs.	Assesses adaptive behavior relating to school performance: communication, daily living skills, coping, socialization, and motor skills	Questionnaire completed by the teacher, (about 20 minutes); 244 items	Does not assess any maladaptive behaviors; internal consistency coefficients above .85 for all scales, except motor; does not present separate interrater or test-retest reliability (Evans & Bradley-Johnson, 1988)
Weller-Strawser Scales of Adaptive Behavior for Learning Disabled (Weller & Strawser, 1981)	6 yrs.-adult	Assesses school coping; relationships with peers and authority figures; pragmatic language, work production (task orientation and organizational skills)	Teacher rating -forced choice; 35 classroom (school) adaptive behavior characteristics	Authors recommend its use only for learning disabled populations; teacher chooses from polar descriptors one which best describes the child, severity is indicated by the total score; interrater reliability = .88; Bender & Golden (1988) found it discriminated among learning disabled and non-learning disabled children better than the Walker Problem Identification Checklist, Revised (Walker, 1983); in both pragmatic language and work production, teacher and student (self-) perceptions were correlated (r=.28-.40); for non-LD children, the teacher and student perceptions were correlated in all areas [3rd to 5th graders]

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Listing of NCES Working Papers to Date

Number	Title	Contact
94-01 (July)	Schools and Staffing Survey (SASS) Papers Presented at Meetings of the American Statistical Association	Dan Kasprzyk
94-02 (July)	Generalized Variance Estimate for Schools and Staffing Survey (SASS)	Dan Kasprzyk
94-03 (July)	1991 Schools and Staffing Survey (SASS) Reinterview Response Variance Report	Dan Kasprzyk
94-04 (July)	The Accuracy of Teachers' Self-reports on their Postsecondary Education: Teacher Transcript Study, Schools and Staffing Survey	Dan Kasprzyk
94-05 (July)	Cost-of-Education Differentials Across the States	William Fowler
94-06 (July)	Six Papers on Teachers from the 1990-91 Schools and Staffing Survey and Other Related Surveys	Dan Kasprzyk
94-07 (Nov.)	Data Comparability and Public Policy: New Interest in Public Library Data Papers Presented at Meetings of the American Statistical Association	Carrol Kindel
95-01 (Jan.)	Schools and Staffing Survey: 1994 Papers Presented at the 1994 Meeting of the American Statistical Association	Dan Kasprzyk
95-02 (Jan.)	QED Estimates of the 1990-91 Schools and Staffing Survey: Deriving and Comparing QED School Estimates with CCD Estimates	Dan Kasprzyk
95-03 (Jan.)	Schools and Staffing Survey: 1990-91 SASS Cross-Questionnaire Analysis	Dan Kasprzyk
95-04 (Jan.)	National Education Longitudinal Study of 1988: Second Follow-up Questionnaire Content Areas and Research Issues	Jeffrey Owings
95-05 (Jan.)	National Education Longitudinal Study of 1988: Conducting Trend Analyses of NLS-72, HS&B, and NELS:88 Seniors	Jeffrey Owings
95-06 (Jan.)	National Education Longitudinal Study of 1988: Conducting Cross-Cohort Comparisons Using HS&B, NAEP, and NELS:88 Academic Transcript Data	Jeffrey Owings

Listing of NCES Working Papers to Date--Continued

Number	Title	Contact
95-07 (Jan.)	National Education Longitudinal Study of 1988: Conducting Trend Analyses HS&B and NELS:88 Sophomore Cohort Dropouts	Jeffrey Owings
95-08 (Feb.)	CCD Adjustment to the 1990-91 SASS: A Comparison of Estimates	Dan Kasprzyk
95-09 (Feb.)	The Results of the 1993 Teacher List Validation Study (TLVS)	Dan Kasprzyk
95-10 (Feb.)	The Results of the 1991-92 Teacher Follow-up Survey (TFS) Reinterview and Extensive Reconciliation	Dan Kasprzyk
95-11 (Mar.)	Measuring Instruction, Curriculum Content, and Instructional Resources: The Status of Recent Work	Sharon Bobbitt & John Ralph
95-12 (Mar.)	Rural Education Data User's Guide	Samuel Peng
95-13 (Mar.)	Assessing Students with Disabilities and Limited English Proficiency	James Houser
95-14 (Mar.)	Empirical Evaluation of Social, Psychological, & Educational Construct Variables Used in NCES Surveys	Samuel Peng
95-15 (Apr.)	Classroom Instructional Processes: A Review of Existing Measurement Approaches and Their Applicability for the Teacher Follow-up Survey	Sharon Bobbitt
95-16 (Apr.)	Intersurvey Consistency in NCES Private School Surveys	Steven Kaufman
95-17 (May)	Estimates of Expenditures for Private K-12 Schools	Steve Broughman
95-18 (Nov.)	An Agenda for Research on Teachers and Schools: Revisiting NCES' Schools and Staffing Survey	Dan Kasprzyk
96-01 (Jan.)	Methodological Issues in the Study of Teachers' Careers: Critical Features of a Truly Longitudinal Study	Dan Kasprzyk
96-02 (Feb.)	Schools and Staffing Survey (SASS): 1995 Selected papers presented at the 1995 Meeting of the American Statistical Association	Dan Kasprzyk
96-03 (Feb.)	National Education Longitudinal Study of 1988 (NELS:88) Research Framework and Issues	Jeffrey Owings

Listing of NCES Working Papers to Date--Continued

Number	Title	Contact
96-04 (Feb.)	Census Mapping Project/School District Data Book	Tai Phan
96-05 (Feb.)	Cognitive Research on the Teacher Listing Form for the Schools and Staffing Survey	Dan Kasprzyk
96-06 (Mar.)	The Schools and Staffing Survey (SASS) for 1998-99: Design Recommendations to Inform Broad Education Policy	Dan Kasprzyk
96-07 (Mar.)	Should SASS Measure Instructional Processes and Teacher Effectiveness?	Dan Kasprzyk
96-08 (Apr.)	How Accurate are Teacher Judgments of Students' Academic Performance?	Jerry West
96-09 (Apr.)	Making Data Relevant for Policy Discussions: Redesigning the School Administrator Questionnaire for the 1998-99 SASS	Dan Kasprzyk
96-10 (Apr.)	1998-99 Schools and Staffing Survey: Issues Related to Survey Depth	Dan Kasprzyk
96-11 (June)	Towards an Organizational Database on America's Schools: A Proposal for the Future of SASS, with comments on School Reform, Governance, and Finance	Dan Kasprzyk
96-12 (June)	Predictors of Retention, Transfer, and Attrition of Special and General Education Teachers: Data from the 1989 Teacher Followup Survey	Dan Kasprzyk
96-13 (June)	Estimation of Response Bias in the NHES:95 Adult Education Survey	Steven Kaufman
96-14 (June)	The 1995 National Household Education Survey: Reinterview Results for the Adult Education Component	Steven Kaufman
96-15 (June)	Nested Structures: District-Level Data in the Schools and Staffing Survey	Dan Kasprzyk
96-16 (June)	Strategies for Collecting Finance Data from Private Schools	Stephen Broughman
96-17 (July)	National Postsecondary Student Aid Study: 1996 Field Test Methodology Report	Andrew G. Malizio

Listing of NCES Working Papers to Date--Continued

Number	Title	Contact
96-18 (Aug.)	Assessment of Social Competence, Adaptive Behaviors, and Approaches to Learning with Young Children	Jerry West

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